THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES

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Seed Time and its Labors—No. I.

Every reader of the COUNTRY GENTLEMAN has long decided on what field to sow this or that particular crop. He now only awaits fine weather and a dry soil to commence operations. In the mean time there is work enough to do. Plows, harrows, roller, whiffletrees, clevices, harness, &c., should be examined, and if repairs are needed, they should be made before the busy season commences. Seed wheat, barley, oats, timothy, clover, peas, &c., should be procured now; and if it is intended to use guano, or other artificial fertilizers, the sooner it is in the barn, and crushed ready for sowing, the better. The shortness of our sowing season makes it pre-eminently desirable that the agriculturist, above all others, should take time by the forelock. Too many farmers neglect all preparation for their spring work, and when the fine weather comes, having every thing to do in a few weeks, they are in too great a hurry to do any thing well. They must flop over a furrow 16 inches wide, scratch it a little with a harrow, sow the seed, and trust to "good luck" and a virgin soil for a harvest. We know it is desirable to plow as much as possible in a day, yet we are far from being convinced that it would not be better to plow an acre narrow and well, than to turn over two acres in wide furrows which cannot be reduced to a good seed bed without a great expenditure of labor with the cultivator and harrow. Plow *deep* if you can; but by all means let all the soil turned up be thoroughly pulverized, especially for spring crops. Let the soil be dry enough to turn up mellow and work well, before you commence plowing; and then the sooner the seed is in the ground after it is plowed the better.

SPRING WHEAT.—As far as we can ascertain, spring wheat sustained less injury from the weevil last year, in most cases, than the winter wheat. It did not wholly escape, as some have claimed, but, as a general thing, good crops were obtained. We hazard nothing in saying that a large breadth of land will be sown with wheat this spring. We have always supposed that the earlier it could be got in, after the ground was in good condition to work, the more likely it was to produce largely; but some good farmers think it is better to sow late in order to escape the weevil. Spring wheat does very well on a recently inverted sod; a lighter and more active soil than for winter wheat is desirable. For this reason, ashes, lime, or any thing that will quicken the soil, would be likely to benefit it more than they improve winter wheat. There are several varieties—the Tea, the Black Sea, the Fife, the Canada Club being the most generally approved. One and a half bushels per acre is usually sown. We think two bushels none too much.

BARLEY.—Owing to our dry, hot and short summers, barley can never be grown here in that perfection which it attains in the moist, long season of the British Isles. English farmers can never, as a general thing, produce wheat equal to our Genesee; but barley is not and never will be here, what it is there, one of the most valuable crops raised on the farm. As food for stock, Indian corn is far superior to it, all things considered. Nevertheless, barley, owing to the large quantity used for malting, has been an exceedingly profitable crop the past few years. Aside from this, there are certain reasons which will always induce many to grow barley;—it is a good crop to follow corn, is easily sown, requires no hoeing, is harvested with little labor, and is off the land in good season for sowing wheat. As a crop to precede wheat it is in this country—though the reverse is true in England—considered less impoverishing to the soil than oats. If any of our readers have any *experimental* knowledge on this point, we should be glad to hear from them.

Barley is usually sown after corn. It should never be sown on a recently inverted old sod. It delights in a gravelly, light, warm, sandy loam. The earlier it is sown after the ground can be got into good condition the better. From two to three bushels are usually sown per acre. We think two and a half bushels quite little enough. English farmers sow three and a half and often four bushels. Greater benefit is derived from the use of the *drill* in sowing barley than in sowing wheat,—at least such is the case in our experience. When the land is in fine tilth—as it always must be for a good crop—we cannot say that rolling will increase the yield, but unless the land is rolled and the surface made smooth, there is always much inconvenience and loss in gathering the crop. If not dry enough at the time of sowing, the land may be rolled when the barley is an inch or two high. In this case be careful not to turn too short, or the roller will tear up the young

grain. The better way is to roll round the outside the field first, and so on, finishing in the center. If barley commands as high a price this year as it did last, we think it will *pay* to use Peruvian guano for this crop. Sow about 200 lbs. per acre, *as soon as the land is plowed*, and harrow it in. Superphosphate has a better effect on barley than it has on wheat, but we do not think it will pay in ordinary cases.

OATS.—After barley the next crop to be sown is oats. They will grow on all soils from a stiff clay to a black muck. The heavy land yields the heaviest oats, while the rich mucky soil, abounding in organic matter, produces the most straw, and in very dry seasons a large crop is obtained, but in wet seasons the straw falls down and the crop is much damaged. On the latter class of soils we should not sow over two bushels of seed per acre. On heavy upland three bushels is none too much. If the oats are grown for home consumption, we should advise to sow with them half a bushel of barley and a peck of peas per acre. This is a common practice in England, and enormous crops are obtained. We know of no cheaper method of wintering horses than to grow a mixture of oats, barley, and peas; cut them before the oats are quite ripe, and while there is much nutritive matter in the straw, bind them in small bundles, let them be well cured, and you have a crop when cut up in the straw, on which horses do as well as on hay and grain.

Spring Wheat—its Varieties and Culture.

MESSRS. EDITORS—In the Country Gentleman of Feb. 15, you give a communication from a correspondent in Brooklyn, (Ct.,) desiring information about "Canada Club Wheat." In some editorial remarks that follow, you say "that you would not be surprised if it were found that the Canada Club and the "Fife" are the same variety." Living in the vicinity where the latter was first introduced into this country, having raised or grown a little of both kinds, and having purchased many tens of thousands of bushels of them, I have concluded to give you the views held here respecting them.

They are decidedly distinct varieties. If sown in the same field on the same day, the Club will ripen a week earlier than the Fife, and the latter will grow and mature well in low, moist, rich soils, (nearly swampy,) while the former if sown in such soils, seldom or never does any good. Hence our farmers sow "Fife" on their low lands, and "Club" on the high and dry. There is also a marked difference in the appearance of the straw while growing, the Club having the usual straw green shade, while the other has a distinct bluish bloom upon it. The kernel or berry, is much the same in size and general appearance in both varieties. The main difference consists in the Fife being lighter colored. There is also a considerable difference in the appearance of the heads—the kernels on the Club are closer or more compact than in the Fife. In height they are nearly alike—both are heavy in the bushel, frequently going up to 65 lbs. The straw in both sorts, is of medium length, but that of the Fife is much the stiffest; hence it seldom lodges, although sown on heavy, moist soil. It has never been known to rust with us, which is not the case with the Club. Both descriptions yield well; on suitable, well tilled land, 30 to 35 bushels per acre are common crops, and much more is frequently obtained. The general impression is, that all things being equal, the Fife yields the best.

The Club has been cultivated here, 10 or 12 years—the former not over 6 or 7. I cannot say where the Club came from, but the history of the Fife is well known. The person who introduced it, lives only a short distance from me. While on his way to this country a few years ago, MR. FIFE obtained about a peck of wheat from a *Russian* vessel, unloading at Glasgow—hence the names, "*Fife*" and *Scotch*. From this small beginning it has spread until each year now witnesses the growing of millions of bushels of it in this Province alone. It has been a favorite from the start, and it does not seem likely soon to lose its good character.

Among our best farmers, spring wheat and seeding invariably follow turnips and carrots. From 1½ to 2½ bushels per acre is the quantity sown—the latter quantity, when the seed is very strong, and when the seed is sown broadcast—the former, where the drill is used. Some *good* farmers do not plow at all before sowing, but merely use the cultivator; good crops have been produced from this mode. The more generally followed and approved plan, is to plow in the spring, harrow in the clover and grass seed (timothy) lightly, and then drill in the wheat. I have followed the latter course, without seeing any reason to change. The latter mode gives one advantage at least over the first, in enabling parties to *weed their wheat* with greater ease.

It was a common practice here a few years ago, to sow spring wheat just as soon as it could be got in, after the snow was off. This is now, to a considerable extent, abandoned, as it has been proved that seed sown in mud, seldom produces ripe grain as soon, or as much of it, as that sown later, when the ground is in a fit condition to receive the seed. A neighbor of mine, got seed from me two years ago, and sowed turnip land about the middle of April. I sowed the same kind of seed, also on turnip land, about the 10th of May. His farm adjoins mine. His land was as well cultivated and as strong and dry as mine. My wheat was in the barn as soon as his, and I got a premium for quality and quantity and he got none.

Very few of our farmers seed with any crop but spring wheat, and as it always (or nearly so,) follows carrots and turnips, the land is in fine condition, and the seeds take well. Some few seed land that is "well used up," to bring it into heart; but the result is generally a failure in all respects. The plan that answers best with us, is to get our land in good heart before seeding with grasses, if we desire good hay and plenty of it.

Before concluding, permit me to say that you may hear of a new variety of Canadian spring wheat, under the name of "Swamp wheat." I do not know it for a fact, but I guess it is only some of our "Fife" wheat, taken from home and baptized afresh. J. SIMPSON

Bowmanville, C. W., Feb. 27, 1855.

The Dioscorea Japonica.

The introduction of this excellent vegetable into France and the United States, and the cultivation of it as far as known, is worthy the attention of all. The Dioscorea is destined by its delicious taste and great productiveness, to replace in a great measure the Potato. It is a native of Japan, and is cultivated there and in the north of China, in great quantities, and feasted upon by rich and poor, all the year round. This remarkable vegetable was introduced into France in the year 1849, by M. MAUTREPREY, then Consul of France in China. It was given him by a missionary. Mr. M. sent it to the "Jardin des Plantes," where it remained unnoticed (as it did not flower,) until his return to France in 1853, when he was perfectly astonished to find so invaluable an article still uncultivated and not in all the markets of France.

A friend of mine, M. PALLIET, (who by the way is a regular wide-awake horticulturist,) being acquainted with Mr. M., and hearing him describe its great merit, set to work in earnest, and propagated between 50.000, and 60.000 the first year; and is preparing to cultivate it in all the different departments of France. Some of the roots were sent last June to the great Horticultural Exhibition in Paris, and gained for Mr. P. the award for the introduction of the most useful plant, beside which, the "Ministre de Agriculture," presented him with 3000 francs. Some of the roots weighing two and a half pounds a piece, were presented to his Majesty the Emperor; they were eaten by the Emperor and Court, and pronounced excellent; after which Mr. P. received an order for 40.000 to be distributed throughout France.

The cultivation of the Dioscorea is very simple, not requiring as much labor as the potato. It will do well in any soil, but light or sandy is prefered, as they will be more mealy than when raised in heavy bottomed land. The roots are cut about 2 inches long, and planted 10 or 12 inches apart in rows, and kept clear of weeds until ready to dig, which will be in Octobor and November. If left in the ground two years, it will go on increasing, and the root will improve in quality. If kept dry, they will keep 8 and 10 months out of the ground, which will be a great advantage, especially for shipping purposes. It is estimated that the Dioscorea will exceed any other produce.

It may be remarked here that the inner part of the root is a fine white, very mealy—very agreeable to the taste, resembling arrow-root, and can be cooked in 10 minutes. Its growth and outward appearance, resemble the sweet potato, and there is no doubt it will be cultivated more extensively than that excellent vegetable, as it possesses the advantage of being hardy, and of being kept a much longer time. I have a drawing, and will have a few plants, which can be seen at my establishment. It is unnecessary to say any more at present, as M. PALLIET is about publishing a treatise upon the subject, for the opening of the Paris Industrial Exhibition in May next, which any person can obtain a copy of by applying to me.

When in Paris last summer, I had the pleasure of seeing the Dioscorea under cultivation. *D. BOLL. Broadway & 50th Street, New-York.*

Cheap Compost for Corn.

Having received the credit for two years past, of having as good pieces of corn as any in our neighborhood, and attributing our success mainly to the use of a single handful of cheap compost, dropped in each hill before planting the corn, we give you a statement as to how we form it.

Supposing a load to contain twenty-five bushels, we take two loads of muck manure from our hog-yard, one load of wood ashes, and three bushels plaster paris. Work the parts thoroughly together with a hoe or shovel. Our corn ground having received a coating of manure before being plowed, the harrow follows the plow lengthwise of the furrows until the surface is well pulverized. We mark one way for the hills with a shallow furrow of the plow, and then draw a chain the other way which shows the place for each hill. The compost gives the corn a good start, and the manure helps it out. We have also, for the two years past, soaked our seed corn in a strong solution of tobacco water, and have not been troubled much with worms. Let it remain in the solution from twelve to twenty-four hours. WM. E. COWLES. *Canton, Conn.*

Draining Swampy Lands.

MESSRS. EDITORS—There is upon almost every farm in the country, some portion of it, so swampy, wet and worthless, as to be a real pest to the owner, and would he but realize for how small an outlay such places might be rendered the most fertile and productive portions of his farm, we should at once witness a great change in their management. Two years ago, I had a field of 12 acres of such land, mostly a mucky soil 6 or 8 inches deep,—on a clay subsoil, and covered with bogs and surface water. When it was dry enough to go on to with a team, I took a strong yoke of oxen, a common and subsoil plow, and went to work ditching. I did not attempt to make any drains at regular intervals, merely cutting a deep ditch between the wet land and the dry, and connecting them with a main drain running through the center of the field, aiming to cut off all the springs, and have the water discharge freely through the drains.

The following is my substitute for a ditching machine. I first plow two furrows with a common plow—after cleaning out the furrows, I hitch on to the subsoil plow, and break up from 4 to 10 inches more, according to the soil. This may be repeated till you have your ditches 2 or 2½ feet deep, by having a long yoke on your oxen so that they can straddle the ditch. It is but a small matter after that, to work them down to 3 feet, which is my usual depth where I can get a sufficient descent. After laying down my stone or tile, and covering them with sod or straw, I take my team and back furrow the earth into the ditch again, and I am done. Two smart men will in this way, dig and cover more ditch than a dozen Irishmen with pick and spade, in the ordinary way.

After draining in this way, I cut off the bogs, and plowed 10 inches deep, with two yoke of oxen and a heavy breaking up plow, and the result is that from being almost worthless, I now consider this land the best on my farm. It has paid me the present dry season, more than the interest of $100 per acre, which can be said of but little land in this vicinity.

Having no idea of publishing the result, I am sorry to say that I have kept no regular account with the field, but this much is evident, that the cost has been but trifling compared with the result produced. S. W. S. *Chatham Center, N. Y.*

Successful Grape Culture.

EDITORS CO. GENT.—Having received several inquiring letters in relation to Mr. McKAY's method of cultivating the grape, I have concluded to answer all through your columns. I should have done it ere this, had I received the following information from Mr. E. A. McKAY of Naples, Ontario Co., sooner.

In an article headed A Profitable Acre in Western New-York, published in your columns last fall, there is a great mistake respecting the quantity produced. Instead of ten tons, the actual yield was a little over 11,000 lbs. of grapes on an acre. But this must still be considered a great yield, and a very profitable one. Mr. McKay says that the amount over 10 cents per lb., which he received for his grapes, will pay all the expenses of cultivation, gathering, and getting to market. This would leave $1100 clear profit.

Said acre was planted in the spring of 1848, one half with vines one year old, and the remainder with those aged two years—160 vines to the acre, or a rod apart each way. Mr. McKay thinks on a middling steep side hill, 12 feet each way would not be too near. His vines are trained in all cases so as to give them the greatest amount of sunshine. For planting, pits were dug from 2½ to 3 feet deep and 6 to 8 feet in diameter. At the bottom of the pits he placed, "16 heavy loads of refuse from the currier's shop, and eighty dead oxen," a drove of which had been driven into Naples at the commencement of winter, and a large portion of them having died during the winter and spring. Mr. McKay also uses well rotted barn-yard manure, but avoids all fresh unfermented manures. His vines now measure on an average over twelve inches in circumference around the body, nor is there any essential difference in size between the parts of the vineyard planted with one or two year old vines. They are trained on wire trellises 8 feet high, running nearly north and south. No. 12 iron wire, is recommended, with a wooden slat 2 inches wide, 1½ feet above the ground, and a similar one along the top of the trellis. He takes no fruit from his vines until the 4th fall after planting. The first year but one the cane or shoot is suffered to grow, and that is cut back to 3 or 4 buds from the ground the next winter. The second season two shoots are allowed to grow. The third season, the trellis is built, and the two canes are shortened to three or four feet each in length, and brought down horizontally and fastened with leathers to the slats along the bottom of the trellis. The third season, every alternate bud is allowed to grow, and trained to the slats along the top of the trellis, and strapped there about the first of September. The fourth season, the vines will bear abundantly, but a vine of 3 inches span (around the body) should only be allowed to bear 5 lbs. of fruit, and be increased to 10 lbs. for every additional inch of girth to any extent. This can be safely done with good culture.

The ground between the rows of vines, may be cultivated with any low vegetable or plant desired, which will help defray a large portion of the expenses of cultivation. Mr. McKay also cautions against heeding the advice of nurserymen frequently given, to plant vines as near together as 6 or 8 feet.

Such has been the success of Mr. McKay that his experience must prove acceptable to all those who are about to begin the cultivation of this agreeable and healthy fruit. If well cultivated, it will pay well. Nor is there any danger of too many grapes being grown, and the market overstocked, at least for many years, since the demand increases faster than the supply, as all cultivators of grapes well know. The Isabella grape is perfectly hardy in our climate. Yours truly, S. B. BUCKLEY. *West Dresden, N. Y., Feb.* 14.

Cultivation of the Ruta Baga.

This root can be easily and profitably raised, in the following manner: Take sod or stubble ground, and plow it in the fall or early in the spring. The last of May, spread on sufficient manure to make the ground rich. The quantity will depend upon the quality of the manure and the previous condition of the soil. Let the plow, drag and bush succeed each other, until the manure is thoroughly incorporated with the soil and the ground made fine and light. On sod, this process should be repeated three times at least, to accomplish it. Throw up the ground into ridges two feet apart. Bush the ridges lengthwise. This will remove the stone and sods from the top of them. The first week in June, with a hand drill, put in the seed, at the rate of one pound per acre. A tin cup, with an awl hole in the bottom, may be substituted for the drill, when there is none at hand. A handle, twenty inches long, should be put upon the side of the cup. Pass along the rows, shaking the cup back and forth near the ground. Cover the seed lightly with a rake.

When the third leaf begins to start, stir the ground with a plow between the rows; hoe and thin out the plants, leaving but one in ten inches. Plow and hoe at least three times, and plaster twice. If the insect troubles the plants put on ashes. The crop will depend much upon the attention it receives after the plants are up. Gather in the fall, as soon as the hard frosts commence. Cut off the tops with a hoe, and pull out the turnip with a potato hook, knocking off the dirt at the same time. When they are dry, take up one in each hand and thump them together as they are put into the basket. In this way, if the turnips are of good size, two men can gather, and put into the cellar, one hundred and fifty bushels in a day. Two many should not be put together, and the cellar should not be made too warm, or they may rot.

An efficient brush may be made by taking half of a round stick, six inches through and seven feet long, for the head; bore seven holes through it, ten inches apart, with a two inch auger. Insert in these holes, saplings of good length filled with fine brush. The flat side of the head should be placed forward. Such a brush passed over a meadow in the spring, where cattle have run in the winter, will pulverize and spread the manure better than it can be done by hand and with much less expense. HIRAM OLMSTEAD. *Walton, Del Co. N. Y., Jan.* 12, 1855.

Small Potatoes.

MESSRS. EDITORS—It seems to be as yet, an undecided subject with many farmers, whether small potatoes are suitable for seed, or whether they are as good as large ones to plant; some asserting that they are. and others as strenuously denying the fact. At the present time, when potatoes bear so high a price, and the prospect being that in some sections it will be difficult to obtain a sufficient quantity of seed for the next crop, it appears to me to be of considerable importance that facts in relation to the subject should be disseminated among the farmers who are engaged in raising this crop. I propose, therefore, to give the result of my experience on this subject.

Some eight years since, at the time of planting my potatoes, I came short of seed to plant. Previous to this time I had used large whole potatoes, or the seed ends cut off, for seed, and suppposed that no others would answer; and now, according to the old theory, I must either go and buy more seed, (which was scarce, and dear at that,) or put in some other crop on my land which was fitted for potatoes. I resolved to do neither; but try the experiment of planting small potatoes; the largest being about the size of common plums, but the most of them being smaller. I carried several bushels of these *little things* to the field, and commenced planting them, putting from two to four in a hill. My father, who was at work with me at the time, laughed at me some, saying he "guessed if the crop was as small as the seed, that I should get sick of digging them;" and I thought so myself. Indeed it looked like small business any way I could fix it. However I finished my planting with them, and waited for the result. The potatoes in the different parts of the field came up at the same time, but the vines from the small potatoes were not as large and thrifty as those from the large ones. At the first hoeing, there was some difference in the tops, but after that the tops from the small potatoes looked as well as any of the field, and continued to through the season. When I came to dig them, I found the potatoes where the small seed was planted, to be as good in every respect, as those where the large potatoes were planted. There were as many in a hill, and the potatoes were as large, and with as few small ones, as those from the large seed.

At the time I commenced using small potatoes for seed, the farmers around me said, perhaps you will get one or two good crops, but *then* your potatoes will run out—they will be all small ones, and they will not yield any, and you will have to go to planting large potatoes again. But as yet I have found no occasion to return to my former method of planting. Since that time I have used small potatoes for seed; not so small as some of those that I planted at first were, but such as are too small to eat, and which the dealers in potatoes will not buy for market. In going about among the farmers who use large potatoes for seed, I find no better looking, or better eating potatoes, than those which I raise from small potatoes, and other things being equal, I get as large crops. One spring, soon after I commenced using small potatoes for seed, a farmer of this place came to my house to purchase potatoes for seed. On going into my cellar, where my potatoes were, he remarked, "What a fine lot of potatoes—those are nice—they are the best I have seen this spring." After we had put up the potatoes which he had bought, he turned to a pile of small ones which I had picked out for my own seed, and inquired what I was going to do with those little potatoes. I replied, that I was going to plant them. Said he, "Those are not good for any thing to plant, are they?" I told him that the potatoes he had just bought were raised from as small potatoes as these little ones, and that I would give him some of these small ones if he would take them home, and plant them on the same kind of soil, and give them the same treatment as he did the large potatoes. This he agreed to do, and he being a careful, systematic farmer, I had no doubt but that he would give them a fair trial. In the fall after he had harvested his crop, he told me that the small potatoes produced as many, as large, and as good ones, as the large ones; that he was unable to see any difference in the potatoes produced from the large and small seed.

Many of the farmers in this vicinity, after seeing the experiment fairly tried, are using small potatoes for seed. This winter I have had several applications from potato dealers for small potatoes for seed, who inform me that the farmers whom they purchase from, are generally adopting the way of using small potatoes for seed. C. T. ALVORD. *Wilmington, Vt., Jan.*, 1855.

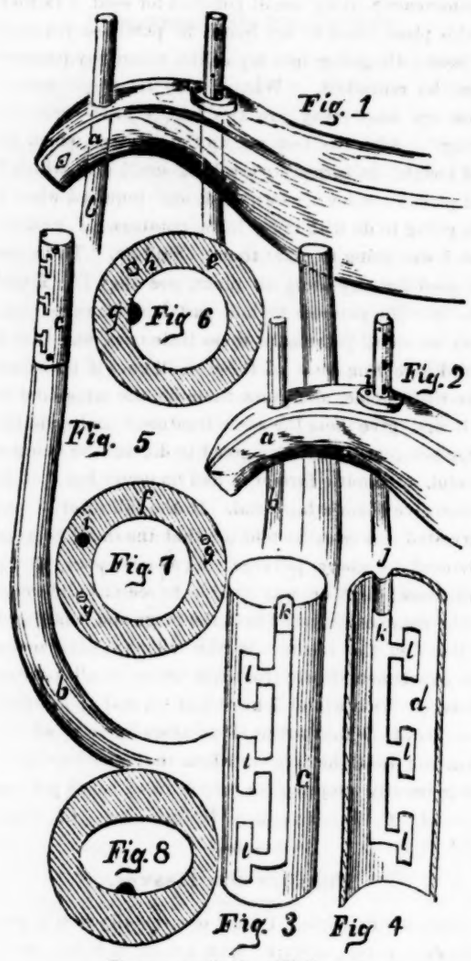
Cure for the Heaves.

MESSRS. EDITORS—I have occasionally seen in your excellent paper, remarks upon heaves in horses, and a course of feed prescribed as a relief—the disease being generally considered incurable. I give below a very simple and perfect cure for this disease:

Keep the horse one winter on cornstalks; and if you feed any grain, let it be corn in the ear, and when you turn the horse to grass in the spring he will be perfectly cured of heaves. In the Southern States, where horses are kept exclusively on corn blades (the leaves of corn stripped from the stalk and dried) and corn, heaves are unknown. A heavey horse, taken from the north into the southern states, and fed on blades and corn, is very soon cured. I have owned several heavey horses, which I have cured in this state, by feeding as above. I would not hesitate to purchase a horse otherwise valuable, because he has the heaves. E. KELLEOG. *Canaan, N. Y.*

Cure for Wens.

MESSRS., EDITORS.—I cured a wen on the under jaw of a three year old steer, by extracting an ulcerated tooth which was the cause of it. It was about the size of a hen's egg. After extracting the tooth, it disappeared in about four months. I understand this practice has been successful in many cases. MILTON SMITH. *Middlefield, Mass.*



Improved Ox Yoke.

The annexed figures are views of an improvement in Ox Yokes, for which a patent was granted to Heman B Hammon, on the 16th of last May. The nature of the invention consists in securing over the end of the bow, the ferrule, *c*, fig. 3, and securing the bow in the beam, *a*, fig. 2, with the washers, *e* and *f*, figs. 6 and 7.

a a is one-half of the yoke beam made in the usual manner, showing the bow, *b*, secured in the yoke beam by the ferrule, *c*, and the washers, *e f*. *c* fig 3, is a view of the ferrule before it is secured to the bow. *d* fig. 4, is a longitudinal sectional view of the ferrule, *k* is a groove to receive the projection, *g*, of washer, *e*. *j* is a concave in the upper end of the groove, from three-eighths to one inch in length, to prevent the top of the ferrule from spreading apart when the ferrule is on the bow. *l l* are apertures, two or more, to receive the projection, *g*, after it has passed down the groove, *k*. The apertures, *l l*, and projection, *g*, are to hold the bow in the yoke beam, as at *a*, fig. 2. The object of having one, two, or more apertures in the ferrule, is to suit it to any sized necks. *e* and *f* are views of the washers *h* is a hole through the washer to receive the pin, *i*; the pin, *i*, and hole, *h*, is to prevent the washer, *e*, from being disconnected from the ferrule, *c*, if by accident the bow should be raised up through the yoke beam, as shown in fig. 1, and the washer, *e*, should be raised out of the lower part of the aperture, *l*, as shown in fig. 1. *g g* are screws to firmly secure the washer, *f*, to the top side of the yoke beam; *m*, is a screw to secure the ferrule to the bow. Fig 5 is a view of the bow with the ferrule attached.

It will be observed that the washer, fig. 8, has an oblong opening in it; this is to make it adjust itself to a yoke, the surface of which is either straight or hollowed, as in the oldfashioned kind. The claim of this patent is for the combination of the ferrule, *c*, or its equivalent, and the washers, *e* and *f*, for fastening ox bows, as thus illustrated and described.

More information respecting this improvement in ox yokes may be obtained by letter addressed to the patentee, Mr. Hammon, at Bristolville, Trumbull Co., Ohio.—*Scientific American.*

Cleanliness of Cow Stables, &c.

MESSRS. EDITORS—A recent discussion in your paper, in regard to the cleanliness of the cow stable, has induced me to put my experience in that matter to paper. Having experimented in direct reference to that object, for a few years past, and having come to definite conclusions by testing its operation for two years or more, I now, in full confidence, offer to the public the following plan as *the desideratum.*

IMPROVED STALLS FOR COWS, OXEN, HORSES, &c.—The floor or platform on which the animals stand, is so constructed that the part occupied by each animal can be moved forward or back separately; that is, any part can be graduated to the length of the animal that is to occupy it. The continued platform, thus made, is raised eight inches from the main floor, and, projecting a little over that floor, leaves a space whereby the manure is easily passed into the cellar. For oxen and horses, the platform is made of strips of joists, confined at one inch asunder.

In connection with this improvement in the floor part of the stalls, to ensure success it becomes necessary to have the crib part so constructed, that the animals will be prevented from reaching, or walking ahead. This is done by having a rack for hay, and a box crib underneath, with a space of about one foot between.

This space enables the animals to lie down, or to rise, as the cribs are within about one foot of the stanchions.

Another improvement is accomplished by bolting all the slip stanchions to a stringer connecting with a lever whereby all of them can be operated in one second of time. This may seem somewhat of a "child's toy," but I can assure gentlemen that a daily use of one 36 ft. in length, for two or three years has saved me much time and perplexity. A stock of cows, &c., stabled in this manner, will continue as clean throughout the year, without litter, as others will during summer in pasture and yard.

There are other novel features about my barn. At one end is a large square, capable of containing 25 tons of dirt, a portion of which is daily mixed thoroughly with the droppings before passing them into the cellar. There is also a scaffold over the stables allotted to sawdust, ashes, &c., which is run down as occasion requires. Corn is always thrown in to encourage the pigs to work well. The cellar for manure, is 17 by 36 ft., without pillar or post; at one end is the opening of a subterranean passage, leading to a piggery; at the opposite end, are archways, leading to beds. On the walls, only 4 ft. high, that separate these compartments, rests the clay bank as mentioned above.

The partitions throughout the cellar are substantial brick walls. Under the main floorway of the barn is the root-bin, 6 by 34 ft., with a slat or open floor, and perfect ventilation underneath. Separated from this apartment, is the fruit cellar, 13 by 60 ft., with doors at each end; and here let me say is the place to keep apples. It is a fact that they will be in as good order and condition, on the first of March, kept in fin out cellar like this, as others will in two months, in common house cellars. We have now nearly 300 barrels of apples on hand, 200 barrels of which are papered like oranges, and are to be shipped soon to the English market. J. W. *Harvard, Mass.*

The Cultivation of Grasses—No. 1.

The Journal of the Royal Agricultural Society of England for 1853, contains a paper "On the relative Nutritive and Fattening Properties of Different Natural and Artificial Grasses," by J. T. WAY, Consulting Chemist to the Society. He has made analyses of some thirty-four species, collected plant by plant, as they were growing naturally in the soil, *at the time of flowering*. Hitherto nearly all our information respecting the nutritive value of the grasses has been derived from the celebrated Woburn experiments conducted by Mr. GEORGE SINCLAIR. It has long been known, however, that his method of determining the amount of nutritious matter in the plant was far from accurate, and hence the necessity of investigations conducted in conformity with the present more advanced state of chemistry and physiology. We have much to learn in regard to the cultivation of grasses, ere we can show such permanent meadows and pastures as are found even in the poorest cultivated districts of Great Britain. Few American farmers have any just conception of the productiveness of a well stocked, underdrained, and irrigated meadow, though all must at once see the value of such a meadow in furnishing food for stock and in increasing the fertility of the upland portions of the farm. It is money thrown away to sow choice grass seeds on a wet ill prepared soil, but after proper cultivation of the soil it is very important to sow a good variety of the best seeds. The English farmers frequently sow a dozen kinds of grass seeds while we seldom sow more than two or three, even when laying down land to permanent grass. It may be argued that if we have one or two that are best adapted to our soil and seasons, it would be foolish to occupy the land with those of a less valuable character. But there is no grass that is best for all purposes and at all seasons of the year. SINCLAIR, our best authority, writing on this subject says: "A certain supply of the most nutritious herbage will be in vain looked for from any one species of grass, and can only be found where nature has provided it in a combination of many."

We are very far from possessing sufficient data to enable us to decide which are the best grasses for pastures and meadows in this country—since it is well known that some of the most popular English kinds prove very inferior with us; and we have yet to take the first step in an experimental investigation of American grasses—yet we think a few articles setting forth some of the *opinions* of practical men, so far as they can be ascertained, may do good in directing attention to the subject. The following table* shows the composition of a few of the specimens analyzed by Prof. WAY. The first column gives the percentage of water in the grass when gathered, at the time of flowering. The other columns show the percentage amount of albuminous matter, or flesh forming principles, of fatty matter, of heat producing principles, of woody fibre, and mineral matter in the *dry substance* of the grass.

* For table see next page.

We are not treading on controverted ground in saying that the less water, woody fibre and mineral matter the grass contains, the more nutritious will it be found. Some will claim that the nutritive value of the grass is in proportion to the amount of "albuminous or flesh forming principles" which it contains; but this, to say the least, is very doubtful. The fatty matter and the "heat producing principles," in our opinion, afford a better test of value, especially for fattening purposes; though it cannot be said that these alone, irrespective of "flesh forming principles," determine the worth of a food. A glance up the first column will show a striking difference in the percentage of water,—timothy having much the least, and the sweet scented Vernal grass the most. But we leave the figures to speak for themselves.

TIMOTHY, (*Phleum pratense*.) Fig. 1.—This grass is called Meadow Cats-tail in England. It is said to have acquired its name of timothy from its first introducer into Maryland, TIMOTHY HANSON. In the New England states it is known as Herd's grass. It is admirably adapted to our climate, flourishes in all soils except an undrained swamp or a blowing sand; is hardy, easy of cultivation, of luxurious growth, and makes the most nutritious and palatable hay for horses of any of the grasses. Between 38° and 44° north latitude it is the most popular grass cultivated on arable land. For permanent meadows, its great drawback is in yielding little aftermath. Prof. WAY's analyses show it to be the most nutritious of grasses, yet it is not prized in England from "being harsh, late and yielding little aftermath, and from possessing no quality in which it is supposed not to be excelled by the fox-tail grass." This is probably a hasty conclusion which WAY's results will do much to reverse, since they show green timothy to contain twice as much nutritive matter as the fox-tail.

Fig. 1.

RED TOP, HERD'S GRASS, FOUL MEADOW OR COMMON BENT. (*Agrostis vulgaris*,) Fig. 2.—This grass springs up naturally in wet, swampy land. It is sown with timothy by many good farmers in order to thicken the bottom of the hay, form a closer pasture for cattle, and furnish aftermath. We are sorry it has not been analyzed by Prof. WAY, as there is much difference of opinion among practical men in regard to its value. The late JOHN DELAFIELD, Esq. in his "General view and Agricultural Survey of the County of Seneca,',

Common name of Plant in this country, and Botanical name.	Percentage amount of WATER in the several grasses at the period of collection.	Percentage composition of the DRY MATTER of the several grasses					
		Albuminous, or flesh forming principles.	Fatty matters.	Heat producing principles—starch, gum, sugar, &c.	Woody fibre.	Mineral matter, or ash.	Date of collection.
Timothy, (*Phleum pratense*)	57.21	11 36	3.55	53.35	26.46	5.28	June 13
Orchard Grass, (*Dactylis glomerata,*)	70.00	13.53	3.14	44.32	33.70	5.31	" "
Rye grass, (*Lolium perenne*)	71.43	11.85	3.17	42 24	35.20	7.54	" 8
Meadow Foxtail, (*Alopecurus pratensis,*)	80.20	12.32	2.92	43.12	33.83	7.81	" 1
Ky. Blue grass,(*Poa pratensis.*)	67.14	10.35	2.63	43 06	38.02	5.94	" 11
Rough Meadow grass,(*Poa trivialis,*)	73.60	9.80	3.67	40.17	38.03	8.33	" 18
Sweet scented Vernal grass,(*Anthoxanthum odoratum.*)	80.35	10.43	3.41	43.48	36.36	6.32	May 25
Downy Oat grass,(*Avena pubescens.*)	61.50	7.97	2.39	49.78	34.64	5.22	June 11
Hard Fescue grass, (*Festuca duriuscula.*)	69.33	12.10	3.34	40.43	38.71	5.42	" 13
Soft Meadow grass,(*Holcus lunatus.*)	69.70	11.52	3.56	39.25	39.30	6.37	" 29
Italian Rye grass,(*Lolium italicum.*)	75.61	10.10	3.27	57.82	19.76	9.05	" 13

Fig. 2—*Red Top*

says: "It would be an improvement to the hay and pasture grounds of this county, if red top grass were more generally cultivated. Red top is a valuable and acceptable fodder for cattle, and another important characteristic is that it is a less exhausting crop than timothy as it contains only four or five per cent of potash while timothy contains over thirty per cent." The fact that the ash of timothy contains six times as much potash as red top is no evidence that it is more exhausting to the farm; if it was, we must consider white and red clover much more exhaustive to the soil than most of the grasses which, to say nothing of scientific experiments, is contrary to all experience. We cannot, therefore, consider red top valuable *because* it contains little potash. It may be useful on swampy lands where better grass will not grow, but for uplands it is more than probable that there are other grasses which will be found to possess the good qualities of red top without its bad ones. In the New England states it is called Foul meadow grass, from the "great difficulty with which it is eradicated when it has once obtained a footing." It is said that the Pennsylvania farmers are so much opposed to having this grass rooted in their fields and meadows that they reject clover and every other grass seed in which the least red top appears. Nevertheless, red top has some good qualities, and many warm friends among the best cultivators in the country. In Massachusetts it is said there are two varieties of *Agrostis vulgaris*, generally known under the name of red top; one considerably larger and later in flowering than the other, and is better adapted to cold moist lands. The small kind is however held in great estimation for its nutritive qualities, especially for feeding working oxen, for which it is, in some districts, thought more valuable than any other grass.

RYE GRASS, (*Lolium perenne*, Fig. 3.) In the alternate system of British Agriculture, this grass, though somewhat on the wane, still holds the foremost rank. JOHN BULL, dear old fellow! is well known to have a great love for *old* things, and, as this grass has been cultivated from time immemorial its popularity may to some extent be owing to this feeling. In some respects it is a very indifferent grass. Like timothy it produces little aftermath; in pastures, if not kept very closely cropped, the cattle will not eat the culms; and when allowed to approach maturity, it impoverishes the soil in a high degree. According to WAY's analyses, however, it is a highly nutritious grass, though much inferior to timothy, and it flourishes on nearly all soils, and under different treatment. It produces an abundance of seed, which can be easily collected and the hay used for fodder afterwards; and it furnishes in its first year of growth a good supply of early herbage. It is usually sown in the spring with barley, at the rate of from one to two pecks per acre, in conjunction with from ten to twenty pounds of the red, white and trefoil clovers. Land so seeded, is seldom

Fig. 3—*Lolium perenne.* Fig. 4—*Anthoxanthum odoratum.*

allowed to lie down longer than two years. There are a number of varieties, some of which have been tried in this country, and, we believe, in most cases, are highly esteemed, especially as food for sheep. It cannot for a moment be supposed that rye grass will ever take the place of timothy in this country, yet, as variety is deirable, it is worthy of more attention than it has yet received.

Sweet scented Vernal Grass, (*Anthoxanthum odoratum*, Fig. 4.) Except that it has some nine per cent more water, the sweet scented vernal is very similar in composition to rye grass. It is found in nearly all British pastures, though it is seldom sown, and, as a general thing, is held in but little estimation, chiefly from the fact that cattle and sheep manifest as little partiality for it as they do for the dry bents of rye grass. It has, however, some excellent qualities. It is early, hardy, permanent, and grows late in the fall, and, in England at least, flowers about the middle of April, and continues to throw up flowering stalks throughout the entire season. It affords an abundance of rich aftermath, and for this reason might be advantageously sown with timothy, or rye grass, which is deficient in this particular. It is found in most parts of the country, and, as its name implies, is remarkable for its fragrance. It abounds in the rich pastures near Philadelphia, and it is claimed that the fine flavor of Philadelphia butter is attributable to this grass. This opinion has occasioned much discussion, from which it would seem that the claim cannot be sustained. Loudon speaks of it as among the best pasture grasses, and as "that which gives the fragrance to natural or

Fig. 5—*Alopecurus pratensis.* Fig. 6—*Dactylis glomerata.*

meadow hay." Low thinks "it can scarcely form the subject, in any case, of useful cultivation."

Meadow Fox-tail grass, (*Alopecurus pratensis* Fig 5.)—This grass is indigenous to the middle states, but we are not aware that it is cultivated to any extent. In England it is much esteemed as a sheep grass in conjunction with white clover. It thrives best on strong clay soils, but it is said not to attain its fullest productive powers from seed till four years. It is therefore not adapted to alternate systems of tillage. Johnson says "it is one of the best grasses for permanent pasture, and should never form a less proportion than one-eighth of any admixture of different grasses prepared for that purpose; its merits demand this, whether in respect to early growth, produce, nutritive qualities, or permanency." Way's analyses show it to be one of the best of grasses so far as nutritive matter is concerned.

Orchard Grass, (*Dactylis glomerata*, Fig. 6.) This grass has been highly recommended in England, where it is known as cock's-foot grass. Sinclair observes "that if one species only is thought preferable to another in the alternate husbandry, that species is the Dactylis glomerata, from its more numerous merits." We have seen highly productive meadows composed principally of this grass, in the light, sandy soils of the county of Norfolk. They were kept very closely cropped by sheep, and for the two or three first years, would yield more nutritious herbage, taking the whole year round, than any other grass. In this country, orchard grass has been highly recommended, but it would appear that it has not come up to what was anticipated

A writer in the *Ohio Cultivator* having read "the glowing accounts respecting the excellent qualities of orchard grass," tried it, and says "it grew tolerably well, and certainly is the best grass I ever had to keep, for nothing will eat it. It is in a field with other grasses, and while other grass was gnawed down close, the orchard grass stood fresh and green." English and American writers agree that it must be eaten close or mown when quite green, or it becomes course, hard and unpalatable. In this country, it is right for cutting at the same time as red clover, and is in this respect preferable to timothy, which does not attain its full nutritive growth for some weeks after the early or common red clover. Another desirable quality is, that it furnishes a good aftermath, and flourishes quite late in the fall. LOUDON says of orchard grass: "It has been found highly useful as an early sheep feed. It is early, hardy and productive, but is a coarser plant than rye-grass, and requires even greater attention in regard to being cut soon or fed close." SINCLAIR had a field laid down in two equal parts, one with rye-grass and white clover, and the other part with orchard grass and red clover. The field was depastured with sheep. From the spring till midsummer, the sheep kept almost constantly on the rye grass; but after that time they left it, and adhered with equal constancy to the orchard grass during the rest of the season. By reference to the table in last number, it will be seen that it is slightly more nutritive than rye grass; and that the analyses confirm the good opinion which English farmers have formed of this grass.

Cultivation of the Sunflower.

MESSRS. EDITORS—I wish that you or some of your readers, would give me some information relative to the culture of the Sunflower, and the manufacture of the seed into oil. Last spring I planted a variety of the seed, called the Ohio mammoth, in the hills where the grubs had eaten up the corn. I planted the seed during the first hoeing of the corn. It was quite late However the seed all came to maturity before the frosts.

I could not judge of the quantity of seed to the acre, as it was scattered over the whole piece. I gathered nine bushels of seed, however, from the whole, (2½ acres.) I took 1½ bushels to a *linseed oil* mill, to see what could be done. The man who worked the mill, told me he had never worked any of the seed, but thought it ought to be dried first. When he made it up, it had shrunk four quarts on the whole, leaving 1½ bushels. It made about five quarts of oil. Subsequently he made all the seed into oil. The seed had got very dry, and had shrunk nearly a bushel on the whole lot. I did not get as much oil from a bushel as at first. I think it must have been too dry. The meat of the seed is very oily. But it is enclosed by a dry, thich husk, which takes a great deal of the oil in pressing. I think there is six quarts of oil in a bushel, if it could be got out. The dry seed weighs about as heavy as oats. The oil burns with a beautiful clear white light; and if it could be got out of the seed would be quite an item of saving to the farmer.

The heads of that which I raised, were well filled, and quite large, some of them being even twelve inches across. The corn did not seem to be injured at all by standing near them, but on the contrary was better if anything. I would like to know if they would grow as well planted alone, and how thick they could be planted? And whether it would not be better to break off the suckers as fast as they appear, and let only the top head grow? Whether best planted early or late? And finally should the seed be dry or not, to manufacture into oil? And also be so kind as to give me the process of making it into oil. For it evidently requires a different treatment from flax seed. If you will take the pains to answer all these questions satisfactorily, you will oblige others as well as your humble subscriber. M. S. *Martinsburgh, N. Y., Feb.* 20 1855.

Draining by Wells.

MESSRS. EDITORS—You wish to know if land can be drained by wells. I have made one experiment only, and that was entirely successful. I owned a piece of land on which there was a basin of about three-fourths of an acre, which received the surplus water of at least ten acres. It would sometimes be from two to three feet deep in the center. The water stood in the basin at least eight months in the year, and the basin was full every hard rain the other four months. On the 3d of August, 1841, I dug a well nine feet deep in the center of the basin, and came to living water, which rose very rapidly, so much so that I expected to see it run over the top in a short time. I think the water rose at least two feet in ten minutes and then stopped, and remained at that depth until a heavy rain of three days. I then went to look at the well, expecting to find it full and running over; but to my utter astonishment, there was not more than two and a half feet in the well. It had risen about four feet during the storm I should judge by the marks on the side of the well. There must have been a great quantity of water run into the well, as at least ten acres discharged its surplus water into it, and the rain fell in torrents during three days. I then dug four open drains leading into the well, and the land has been sufficiently dry for wheat, corn, oats, or grass, ever since. It has been in grass for the last 12 years, and has borne a heavy crop of first rate hay.

I should advise in all instances, to dig until you come to living water, and then the water will pass off in the fissures of the earth. I have not the least doubt but that almost any spring can be drained by digging a well at a little distance, and leading the water into it. I would state that I filled the well full of stone, thinking it would be cheaper to dig a new one than to stone it and keep it covered, if it should fail to carry off the water. ASA HUBBARD. *Middletown, Ct.*

PLANT corn and potatoes early—there is much greater loss by too late than too early planting.

Fruit—its Enemies and Benefits.

The Apple-Worm and Curculio.

MESSRS. EDITORS—Many thanks to you for your various articles on the half-doing-system and following the multitude, and especially for that on "the greatest enemy of Fruit Culture." To me, and I trust to all that find the same difficulty in making war against the old ways, it is indeed cheering; and I hope you will not relax in your efforts though it would not be strange if you became disheartened, in bearing up under all the discouragements you meet with.

But as I mean not to be tiresome, I will suggest a query or two. Agreeing with you entirely as to the greatest enemy of Fruit Culture, I would inquire whether, among the smaller ones, the common Apple Worm or Codling Moth, (if indeed he is distinct from the Curculio,) is not of more comparative consequence than generally spoken of, and if any remedy can be found for it?

Would it not be well also to dwell much, in the horticultural and agricultural papers on the moral and physical effects of the culture of good fruit, and thus in some measure tend to break up the supreme attachment to the *Dollar* in the eyes of the community?

Might not the American Pomological Society properly devote some time to the discussion of the effects of fruit culture on the physical and moral well-being of man?

Allow me to express the opinion also, that beauty, size and productiveness, (which are in most estimation for market fruits,) are not sufficiently valued by most fruit growers, in comparison with the highest delicacy of flavor, (and thus fruit is prevented from becoming as common as it otherwise would be,) inasmuch as the benefit of the mass of the people is of more consequence than that of the few. S. M. *Kensington, Ct.*

In reply to the inquiry of our correspondent, we may remark that the apple-worm is becoming a formidable enemy. Of some varieties, scarcely a single specimen was found free from it the past season. It is totally distinct from the curculio, which is a beetle or hard-shelled insect, known by the very general and erroneous name of "bug," while the apple-worm is strictly a caterpillar, changing, in its perfect state, to a "miller."

The curculio, while yet in the larva (or "worm") state, is a little whitish grub, destitute of feet, and resembling a maggot in appearance, except that it has a distinct, rounded, light brown head. The apple-worm, on the contrary, has, when young, a black, heart-shaped head, the top of the first and last ring is also black; like all caterpillars, it has legs and there are four pairs of blackish dots on the rings of its body. When older it assumes a flesh color, the head and two black rings turn brown, and the dots disappear. The curculio lays its eggs in the side of the young fruit, through a *crescent-like* incision which it makes in the skin; while

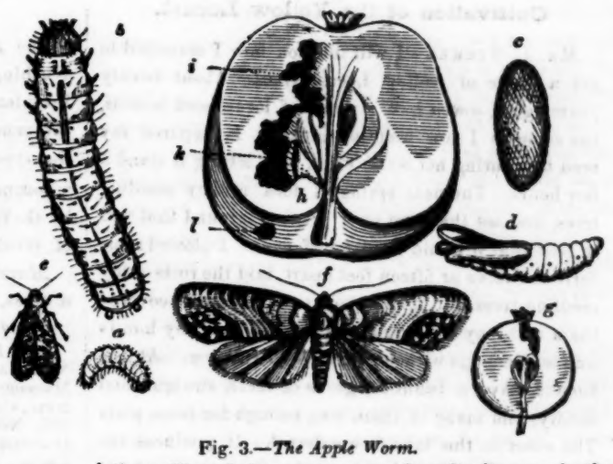


Fig. 3.—*The Apple Worm.*

the miller of the apple-worm deposits its egg in the blossom and makes no incision. The curculio not unfrequently stings the apple, as the crescent-like prints so clearly exhibit; but the apple-worm never lays in the plum and other stone fruit, which forms the common home of the curculio.

The annexed figure (Fig. 1,) represents the curculio in its perfect or beetle state, and Fig. 2 shows a magnified young plum with the crescent-like incision made through the skin in laying the egg. In its perfect state the curculio is a rough, dark brown or blackish beetle, appearing to a hasty glance like a dried blossom or bud, the resemblance being increased by its habit of drawing up its legs and bending in its snout, and remaining motionless, when disturbed

Fig. 1.

Fig. 2.

The accompanying figures exhibit the apple-worm in all its transformations; *a*, is the larva; *b* the same magnified three times in diameter or length; *c*, the cocoon which it spins when fully grown; *d*, the pupa within this cocoon, the second state to which it changes; *e* and *f*, the male and female perfect insects or millers; *g*, the young larva, just hatched near the blossom end of the young apple; *h*, *i*, *k*, the progressive work of the worm within the apple: and *l*, the hole it makes to get rid of the refuse fragments of its food, and through which it finally escapes when the apple falls to the ground.

Early apples are more liable to the attacks of this insect than others, and when they attain full size before falling, it causes their premature ripening.

The best remedy for this insect is to allow a herd of swine to run in the orchard, sufficiently numerous to pick up all the freshly fallen specimens, and thus destroy the worms. As the cocoons often lodge in the rough bark of the trees, scraping the bark or washing it with lye is a useful auxiliary. It is said, also, that a bunch of woolen rags lodged in a fork of the tree will attract numbers, when they may be destroyed; but what the comparative efficacy of these two remedies may be, we are unable from experience to inform our correspondent.

Cultivation of the Yellow Locust.

MR. L. TUCKER—I will tell you how I managed to get a grove of yellow Locust trees. About twenty years ago, I sowed half a pound of locust seed in beds, the same as I sow beets or carrots. I prepared my seed by pouring hot water on it, and letting it stand a few hours. The next spring, I took up my seedling trees, and set them out on a piece of ground that was so poor that it would hardly turf over. I plowed some furrows twelve or fifteen feet apart, laid the roots of my seedling trees into them, about two feet apart, covered them with my hoe, righted them up with my hands and let them go without further cultivation. At thi time I have a beautiful grove of trees, straight and thrifty, and many of them long enough for fence posts The effect on the land is wonderful. It produces ten times the feed it did before the trees were set out When I took possession of my farm, I found that acre had been skinned until it was almost worthless. Now it produces double the feed of any acre of pasture I have. I take no little pride in showing my trees, and the luxuriant growth of white clover under them SOLYMAN CUNE. *Brattleboro, Vt*

Spring Wheat—Different Varieties.

MESSRS. EDITORS—J. B. Whitcomb, of Brooklyn, Ct., makes some inquiries respecting the different varieties of spring wheat. We have in our town, a superior variety of spring wheat, which goes by the name of China or Black Tea Wheat, and by some is called Sabtarian Wheat. The origin of this beautiful wheat is this. Some 12 years since, there was found by a merchant in Petersburgh, Rensselaer Co., N. Y., 6 or 7 kernels of this kind of wheat in a chest of black tea, which was sown, and the product of that wheat was sent to a friend in Granville, (an adjoining town,) and is giving good satisfaction to all that have tried it. It has been raised in my neighborhood for 3 years, and now has the preference of all the different varieties of of spring wheat. I have obtained some of this wheat and intend to sow it the coming spring. It combines more good qualities than any variety here known. The straw is very stiff, and I have never known it to rust. It threshes very easily. It should be cut rather early, as it is liable to shell if left till fully ripe. The quality of the flour is equal to any other spring wheat. It is said to yield well—from 15 to 40 bushels per acre. The present price for seed is $2.50 per bushel. E. S. S. *Hartford, N. Y.*

Grafting the Peach.

This, in the northern states, requires great skill for it successful performance, but at the south where growth is so much more rapid, and other influences more favorable, it is comparatively easy. In a late letter from ROBERT HARWELL, of Mobile, long known for his skill in fruit culture at that place, he gives the following results of his practice.

"I propagate all my peaches by grafting, beginning in November or December, and if the stocks and gratts are good and the grafting well done, I do not lose over *five* in a hundred. I have my grafting done at the house, and plant the grafts like cabbage plants. I formerly budded, but found it very troublesome, and have entirely abandoned it."

National Ag. Society.

The annual meeting of this Society was held in Washington City, last week, commencing Feb. 28, the President, Col. WILDER, in the chair—who delivered the annual address, which is highly spoken of. After the appointment of the usual committees, the Society adjourned till evening, when an Address was delivered by G. W. P. CUSTIS, "On the Agricultural Character of Washington."

March 1.—After the reception of reports of committees, the following officers were elected:

President—MARSHALL P. WILDER, of Mass.

Vice Presidents—John D. Lang, Maine—H. F. French, New Hampshire—Fred. Holbrook, Vermont—B. V. French, Massachusetts—Jos. J. Cooke, Rhode Island—John T. Andrew, Connecticut—Henry Wager, New-York—Isaac Cornell, New Jersey—Isaac Newton, Pennsylvania—C. H. Holcombe, Delaware—H. G. S. Key, Maryland—G. W. P. Custis, Virginia—Henry K. Burgwyn, North Carolina—James Hopkinson, South Carolina—D. A. Reese, Georgia—A. P. Hatch, Alabama—A. G. Brown, Mississippi—J. D. B. DeBow, Louisiana—General Whitfield, Kansas—J. J. Worthington, Ohio—B. Gratz Kentucky—M. P. Gentry, Tenn.—Jos. Orr, Indiana—J. A. Kinnicutt, Illinois—Thos. Allen, Missouri—T. B. Flournoy, Arkansas—J. C. Holmes, Michigan—Jackson Morton, Florida—T. C. Rusk, Texas—J. W. Grimes, Iowa—B. C. Eastman, Wisconsin—J. M. Horner, California—Joseph H. Bradley, District of Columbia—S. M. Baird, New Mexico—H. H. Sibley, Minnesota—Joseph Lane, Oregon—J. L. Hayes, Utah—Mr. Giddings, Nebraska.

Executive Committee—John A. King, New-York—C. B. Calvert, Maryland—A. D. Elwyn, Pennsylvania—J. Wentworth, Illinois—B. Perley Poore, Massachusetts—A. Watts, Ohio—John Jones, Delaware.

Secretary—William S. King, Boston, Massachusetts.

Treasurer—B. B. French, Washington, D. C.

Fruit Grower's Society of Western New-York.

A convention of Fruit Growers of Western New-York, was held at Rochester on the 27th ultimo, for organizing an association, for the advancement of the science of pomology, and the art of fruit raising. Various counties were represented, from Cayuga to Erie; a constitution was adopted, and officers appointed, and a vigorous commencement made.

The meeting was organized by the appointment of H. P. NORTON, of Brockport, as chairman, and JOHN B. EATON, of Buffalo, as Secretary. A committee consisting of J. J. Thomas, of Macedon, P. Barry, of Rochester, Austin Pinney, of Clarkson, W. R. Coppock of Buffalo, and W. P. Townsend of Lockport, to present a constitution, offered one to the convention, which was adopted. This constitution prescribes that the twenty-two counties west of and including Oswego, Onondaga and Cortland, shall form the territory embraced by the society; that the payment of one dollar shall constitute annual membership, and ten dollars at one time, life membership; that there shall be a president, three vice presidents, a secretary and treasurer, an executive committee, standing committees on American and Foreign fruits, and a general fruit committee consisting of a general chairman and three members in each county represented.

The following officers of the society were elected:

President—JOHN J. THOMAS, of Macedon.

Vice Presidents—Lewis F. Allen, Buffalo; H. P. Norton, Brockport; E. W. Leavenworth, Syracuse.

Secretary—John B. Eaton, Buffalo.

Treasurer—Wm. P. Townsend, Lockport.

Col. Ware's Cotswold Sheep.

Having heard much of the celebrated flock of Improved Cotswold Sheep of Col. WARE, of Clarke Co., (Va.,) we asked him for some account of them. In connection with his answer which we publish below, he sent us some beautiful specimens of wool, and a printed circular, from which we learn that he has added to his flock for six or eight years past, by annual importations of the best to be procured in England, obtaining in several instances, animals which had received the first prizes at the exhibition of the Royal Ag. Society.

LUTHER TUCKER, Esq.—In compliance with your request, I send you this notice of my sheep: I had a flock of good sheep, but found, besides the fleece, each sheep at 4 years old on grass, would not command more than $2.50—the best, fed on grain in the winter, would bring over $4.00. To supply a butcher each year a lot of fat sheep of a farmer's own raising, would require him to keep 4 lots on hand to sell one, the fleece but little more than paying for the keep. To rely upon a fleece *alone* for profit was too insignificant a matter. At the highest price per lb. given in the U. S., it would require too many sheep to make a small sum of money. Not being satisfied with this state of things, I determined to purchase some of the large mutton sheep of England, the improved Cotswold, and try what could be done with them; and as independent of the pride, I believe it the true policy to have the best as it soonest returns the outlay, I imported, I do import each year winners of the high prizes of the Royal Ag. Society of England. If they beat England, I must surely have the purest bred and best.

I soon found, after putting 3 crosses of my imported bucks on my ordinary flock, that the fleece greatly increased in weight, and sold for as much per lb. as the fleece of the ordinary sheep, and I sold the mutton from these crosses (not thorough bred) without difficulty, the fall after one year old, for $10 each on the farm, so that I sell out clean every year, keeping none over the winter, but the breeding ewes and the lambs of the same spring.

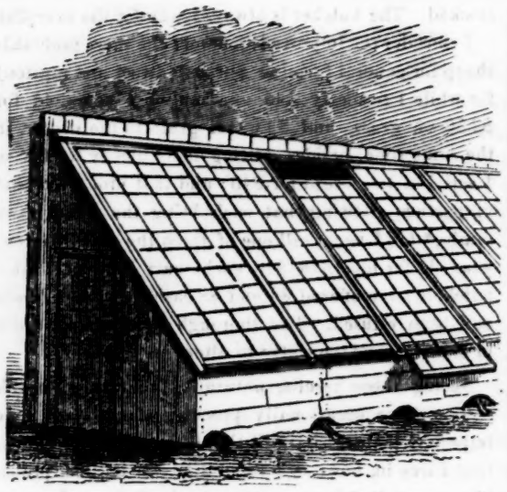
You will see from my circular sent you by remarks of others about my sheep, that I have sold some muttons for $35 and $25 each, and you will see from the no. of lbs. of washed wool to the fleece, that we make more money to the fleece than any other breed.—I send you samples of wool—the longest is from a fleece of 18½lb.—the next 17½—the next 16—the next 14, the growth being from the shearing of 1853 to that of 1854. All is not so long. I have had it longer. I always wash my sheep before shearing, but admit that the flock from raising lambs and losing some wool, average only 6 lbs. washed. We never sell under 30 cents per lb. and sometimes get 40, and you will see we still make as much money or more to the fleece than any other breed. Selling out clean every year enables us to keep all our sheep of the most profitable size—ewes that bring us lambs every year (and being prolific) mostly bring twins and wool too. We are never overstocked. The butcher is always ready for the overplus

I consider the improved Cotswold the most profitable sheep for general farming purposes (wool and mutton) for while I formerly sold *one* mutton 4 years old for $2.50 on grass, and $4.00 on grain in the winter, in the same time, besides getting more money for fleece, I sell 4 of this breed for $40; and that profit is in that proportion, allowing that each bring the same no. of lambs,* for I never sell one of them the fall after one year old for less than $10 each, part bred at that—butchers have offered $6 and $8 cash for some *lambs* and been refused. The thorough bred are too much in demand, and too costly to alter.

Seeing these results, naturally the farmers in this section have occasionally procured of me rams, and improved their flock, until this little county of Clarke that I live in, has now a reputation for mutton probably unequalled by any *State* in the Union. Is it not the true policy of the farmer to keep that breed which will produce the greatest amount of money from the smallest number? It is not unusual in this county, for a flock of from 40 to 50 ewes, part bred, to yield in mutton and wool each year, from $500 to $650.

I know it is a theory with some that these large sheep require more food to sustain them than the small breed. Some say double. My experience is the reverse. *I* cannot, nor can any person else, form any correct idea of the fact on grass, but nearly *correct* conclusions *can* be arrived at when you feed them on grain for the butcher. In this way I have tested it. I have, beginning at the same time, fed a lot of ordinary sheep 4 years old, the pick of 700 good ones, and a lot of *yearling* Cotswolds, the same number in adjoining fields, the most indifferent field to the Cotswold—the same amount fed at the same time to each lot. The former always eat up clean, and wanted more; the latter always left some, and were sold January 1st, rolling fat, for $10 each; the former not until some time in March; then with difficulty and grumbling by the butcher for $4.00 each, having the advantage of the others also in age. I have come to the conclusion that at least 2 (I believe 3) Cotswold, *even yearlings*, can be fattened well for the butcher on the grain it takes to fatten one of the others of any age. The Cotswolds have great propensity to take on fat, are always mutton. Indeed you cannot lay the fat on any other, as you can on them. It is their nature. All others travel a great deal, and ramble off their food. The Cotswolds are heavy, sluggish sheep, fill themselves and lay down and ruminate like cattle, and thus convert their food into fat, instead of rambling it off, and it is to this sluggish quality, I ascribe the fact that I have never lost a thoro' bred by dogs: they do not jump up and run when any thing comes into the field, thus tempting dogs to the chase. They are large sheep; have been brought in England, by full treatment at 3 years old, thorough bred, to *nett* for the butcher *over* 300 *lbs.*—Can any other breed of sheep give from $2 to $5 in fleece in the spring he is one year old, and in the fall of the same year without fail, $10 as a mutton, and draw butchers hundreds of miles to get them at that, as they do here every year? can *cattle* do so? and they have no fleece. Can they give $10 even the fall after one year old? and they consume infinitely more per head. Then what animal can be so profitable to the farmer as the Cotswold sheep for general farming purposes, returning its outlay with such certainty, so speedy and so unceasingly? JOSIAH WM. WARE. *Near Berryville, Clarke Co. Virginia.*

* "11 ewes brought 28 living lambs—5 of the 11 brought 16 lambs—one of the 5 brought 4—the other 4 brought 3 lambs each."



Cheap Vineries.

The real merits of the foreign grape as a delicious fruit, are, even at the present day, but very little known by the great mass of the people of this country. Any one who has charge of a vinery, can testify as to the truth of this, by the questions frequently put concerning them,—numbers of even the well-to-do having never tasted them. And as the old adage runs, "the proof of the pudding is in the eating of it," so they are not likely to fully comprehend their value, till such times as they can taste for themselves.

It has been found by numberless experiments, that the growing the foreign grape out-doors, is almost a complete failure in this country, principally from the ravages of mildew, but undoubtedly partly owing to the severity of the winter, materially weakening the vitality of the vine, by which it becomes susceptible to the ravages of disease and insects. While this is true, no country can produce finer fruit than is done with the assistance of glass only.

In a back number of this paper, a vinery has been given on an extensive scale, suitable to the means of the opulent, where the services of a competent person can be kept to look after it. The one offered here is but a small contrivance in comparison, within the means of all, and can be attended to during the leisure hours of the man of business.

As will be observed by a reference to the illustration, the back and ends are nothing more than upright boards, secured to posts and rails, similar to a fence. It would be better if the outside was clapboarded, and the space between filled with tan or sawdust. In front, the boards are placed horizontally. Where there is any building with a south or south-east aspect, the cost would be still less, as a plate could be fastened to this for the rafters to rest on,—the ends, front, and sash, being all that would be required. The dimensions might be of any size from six feet wide upwards; but where the width is less than ten feet, it is advisable to train the vines horizontally lengthwise of the house, as they would then have room for extension of the branches, a desirable feature in circumscribed limits.

Between the two extremes, the following dimensions would be a snug little vinery for the farmer, or amateur gardener. Height of back, 10 feet; front, 3 feet; length, 25 feet; width, 12 feet. The rafters should be about 3 feet 3 inches apart, including the rafters. A vine should be planted to run up each of these rafters; and a row can be planted at the back to cover the back wall. In this case the vinery border will have to be made inside of the house as well as out. Except the sash, which would have to be made by a carpenter or sash maker, (except there are any spare hot-bed lights which could easily be made to answer for the vinery,) the whole of this house could be constructed by the farmer or a rough carpenter, of any lumber at hand.

We will give some instructions on the formation of the vine border, in our next. EDGAR SANDERS.

Barn Cellars for Manure.

To those of my brother farmers who are not properly located to have a cellar under their barns, or who are waiting until they are better able to afford the luxury of having one, I would just give them an account of the way they may temporarily enjoy *some* of its benefits; merely adding, that the advice comes cheap, and they are not obliged to follow it.

It is taken for granted that you have a good, commodious, open cow-shed, and that your cattle are mostly stabled every day. When you clear your stables, instead of making an unsightly pile at your back window, or about your stable door, have a wheelbarrow ready in the stable; throw your manure into that, and take it and empty in your cow-shed. By spreading it evenly, and using litter, the shed may be kept in good order for cattle to lie in; and you have the satisfaction of knowing that one-half of the good qualities of the manure are not wasted by the washing rains, or the heat of the sun. As regards the labor, my own experience teaches me that it is not any more than to throw it out of the door, and then be obliged to shovel it away daily to keep the entrance clear. WM. J. PETTEE. *Lakeville, Conn., Jan.* 19, 1855.

Sheep Manure on Meadows.

The following method of manuring meadow land with sheep, communicated to me by the Hon. A. D. BALDWIN of Greenfield Hill, Conn., seemed so feasible, that I send it to you for the benefit of others who are, like myself, novices in sheep husbandry.

Sheep manure is No. 1, for grass lands, which can easily and effectually be manured by building light movable sheds, open on one end; the sills to be made like sled runners on the ends; put them in the lots to be manured, and when the sheep occupy it for a lodging place long enough to give the ground in and around it a good coat of manure, hitch a team to it, and remove it two or three rods, and so on. When you get across the lot, hitch on to the other end and draw it back over a new strip of land, and so on until the whole lot is manured in this way. The land will show the effect of the top dressing for many years. S. *Plymouth, Ct.*

The Begonia Parvifolia,

Or *Small leaved Elephant's Ear*, is one of the prettiest of this singular family of plants. It has the good feature of continuing a very long time in flower, commencing early in the spring, and continuing throughout the summer and autumn. Its flowers are blush-white, and produced in the greatest profusion. It has small, angulated oblique leaves, and is a native of the Cape of Good Hope. It is sometimes called *B. floribunda*, and *B. semperflorens*. It is a bulbous kind, and after flowering requires to be kept nearly dry till it commences growing again. It should be liberally but not over potted, using plenty of drainage, while it is growing; using for soil turfy loam, and peat, equal parts, well mixed with white sand. It strikes readily from cuttings, which will commence flowering immediately after they are struck. It will succeed in a green-house, but does better in a hot-house. EDGAR SANDERS.

Remedy for the Black Knot.

In conversing with a friend a few days since, he informed me that he had been successful in removing the black excrescences that have proved so injurious to plum trees, as follows: Saturate the knot with spirits of turpentine, and in time it will dry up and heal over. He thinks the disease is caused by an insect, which the spirits of turpentine destroys, and thereby remedies the evil. He had recommended it to his neighbors, and in all cases it has proved alike beneficial. In looking over some of the back volumes of the CULTIVATOR, I find the general remedy recommended, is excision, and knowing that this sometimes proves injurious to the tree, I thought I would send you this remedy,—so simple and yet so beneficial,—for publication, not doubting but that I should get some ideas in return from your correspondents.

I see the cherry is affected, in some sections of the country, with the black knot, and I presume the above remedy will prove alike beneficial to them. D. GRIFFEN. *Albany, N. Y., Feb.* 3, 1855.

Manuring with Sheep.

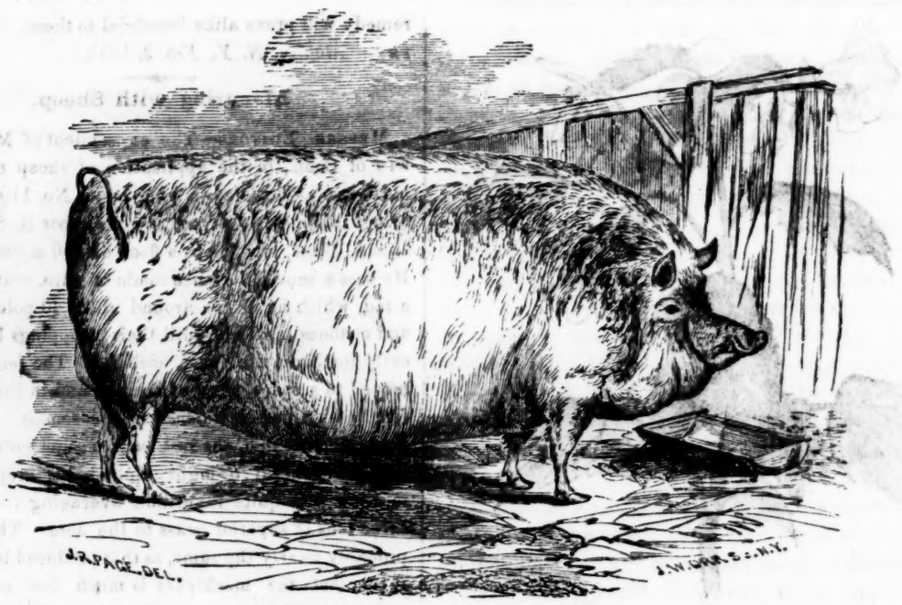
MESSRS. EDITORS—The experiment of Mr. BALDWIN of Conn., in the application of sheep manure to meadows, as detailed in your paper No. 110, page 87, brings to mind the ways of my neighbor R. S. FAY, of Lyons, Mass., who keeps a flock of 500 superior sheep. He uses a moveable fence made of wire, costing $1.50 a rod, which he places around about 40 poles of land, and confines his flock, until their droppings have sufficiently fertilized the space enclosed. The fence is then moved to a space next adjoining, and in this way he fertilizes at least *ten acres* in the season. I saw his fields thus treated, the last season; and notwithstanding the general drought around, his crop over his meadow was quite luxuriant, averaging from two to three tons of superior grass to the acre. The effect is probably nearly the same, as that produced by Mr. B.'s sheds, but the machinery is much less cumberous, and the applications more extended. The fence used by Mr. F. can be easily rolled up, and housed, and when thus used, it continues without depreciation in value for a long time. It was the opinion of Mr. FAY, that his crop was doubled by the use thus made of his sheep. He is a man of discriminating observation, who makes no assertions beyond his knowledge. I have rarely seen an experiment, where the advantages were greater in proportion to the cost. Very truly yours. J. W. P. *Feb.* 9, 1855.

Manuring Meadows.

Seeing an article in a late number of the *Country Gentleman*, on the renewing old meadows, when to manure, &c., called to mind an inquiry some years since in the N. E. Farmer, on similar subjects, to which I replied in the language of the Poet:

"Would you know the best time to laugh and to sing.
'Tis *summer*, 'tis *autumn*, 'tis *winter*, 'tis *spring*."

And again in language of a higher authority—"In the morning sow thy seed, and in the evening withhold not thine hand, for thou knowest not, whether this or that shall prosper, or whether both shall be alike good." After more than a half century's experience in manuring meadow lands, and seeing so much depend upon the timely coming of rain, I have adopted the practice of putting manure upon meadow or mowing land, at any and all seasons of the year from the time one crop is taken off, till the grass is so large the following spring, as apparently to be injured by the operation. I have known fine manure spread on in the spring after the grass was up two or three inches, and do admirably, *rain coming soon*; and I have known coarse manure put on early, and followed by a dry summer, and the crop not apparently benefited at all, but the next season it was of great benefit. I have put on coarse manure immediately after taking off a crop of hay, and rain coming soon, the grass shortly resembled a field of rye when 5 or 6 inches high, so that I believe it a safe rule to put manure on to land at any time when the standing or growing crop will not be injured by it, and it will be like bread cast upon the waters—return, after *many* days, if not *few*, will be very certain. A READER OF THE CO. GENT.



Suffolk Boar "Lord Wenlock,"

Winner of the 1st Prize in his class at the N. Y. State Show in 1853, and the 2d Prize at the N. Y. State Show in 1854—the property of L. G. MORRIS. Mount Fordham, by whom he was selected and imported.

Rich Milk.

MESSRS. EDITORS—You have often heard me express the opinion that no other than Alderney cows would compare with the Ayrshire in richness of milk; and yet I am ashamed to say that I never put the latter to the test of the scales until last week. I then weighed nine pounds five ounces of very beautiful yellow butter, made from 118 lbs. of milk, taken in during the three previous days. In another trial since made, 68 lbs. milk yielded 6 lbs. 2 oz. butter. The cream was taken off in the ordinary way, and churned without the milk. The feed of the cows was good hay only.

My attention was now called to the subject, by reading an article in one of your former nos., in which it is stated that 20½ lbs. milk in autumn is given as the average weight necessary to produce a pound of butter, while in the two trials given above, the product of butter was one pound to 12 lbs. of milk; and the butter has a richness of color and taste, that I have never noticed in any other than Alderney, at this season. E. P. PRENTICE. *Mount Hope, Feb.* 24, 1855.

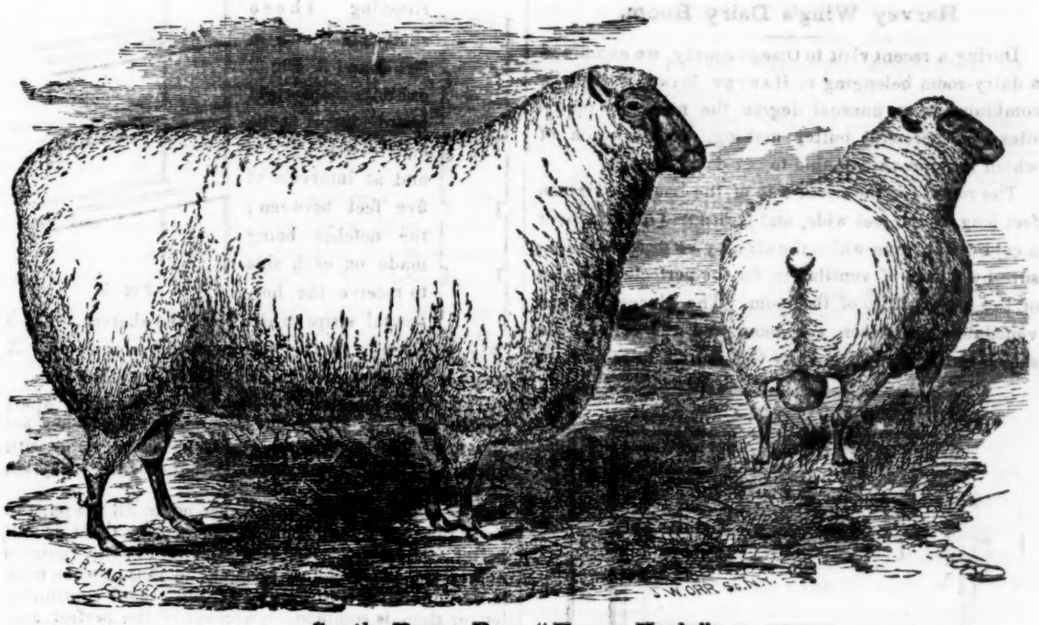
We are much obliged to Mr. PRENTICE for the above, as also for some beautiful samples of the rich yellow butter produced by his Ayrshires. The product is extraordinary, and we shall be glad to learn from those who keep Alderney cows, whether they can equal it.

SALE OF IMPORTED JACKS.—The Jacks and Jennets imported from Spain by the Kentucky Stock Importing Company were recently sold at Georgetown, Ky., at public auction. Eleven Jacks sold for $7.901, varying from $350 to $1.550 each. Four Jennets sold for $2,689. These prices are said to be remunerative.

Feeding Straw and Hay.

The present scarcity of feed for stock, has prompted me to communicate my experience in feeding straw. I find many people think cattle will not eat straw in connection with hay, and consequently feed all straw, or all hay, which, I think, is wrong, because in feeding all straw, the stock must be losing, when, if they would feed hay once a day, and straw the rest of the time, their stock would do quite as well as if fed all hay. My plan of feeding, which I have followed for several years, is this. In the morning about 6 o'clock, (and by the way, regularity is very essential in feeding any thing,) I feed them corn stalks as many as they will eat clean; then at noon, feed them straw in the yard, and then fill their manger with straw, which they pick over during the night, and what is left, is spread under them for litter. This routine I follow through the winter, using hay in the place of the stalks when they are gone. The result is, my stock comes out in the spring in as good condition as those who had all hay. My cows I feed a little meal from the middle of March The secret, in my opinion, is in the regular feeding F. F. S. *Moravia, N. Y.*

CRUSHING OATS FOR HORSES.—It has been said that the stomach of a horse would digest oats when swallowed whole, or without mastication, and that therefore it was unnecessary to crush them. The veterinary surgeon connected with the immense establishment of BARCLAY & PERKINS, the great London brewers, in order to test this point, gave some horses unbruised oats made into balls, when he found that nearly half of the grain was voided quite sound and even vegetated when put into the ground.



South Down Ram "Young York,"

IN TWO POSITIONS.

Our readers, we are confident, will be gratified by the exhibition in the above portrait, of another of Mr. MORRIS' beautiful prize animals. "Young York" was imported by Messrs. MORRIS and BECAR, but is now owned by L. G. MORRIS, Mount Fordham, and won the first prize at the New-York State Show in 1854.

Brookfield Town Ag. Society.

At the annual meeting of the Brookfield Agricultural Society, the following persons were elected officers:

President—STEPHEN HOXIE.
V. Presidents—Warren DeLancey and Joseph Lamb.
Secretary—Alvin Green.
Treasurer—Luke Hoxie.
Ex. Committee—Heman A. Brown, A. L. Saunders, Morgan L. Brown, Samuel H. Burdick, C. Langworthy, Andrew Babcock, Jared Cheesbro, Peleg Greene, Thomas R. Gorton.

The Society found its funds to stand as follows:

Balance from last year,.....	$256.05
Interest received on same,.....	16.30
Received for Memberships and Tickets,.....	431 02
Donation from J. Wilkenson, Esq., his premium,	.50
" " Mrs. W. Scott, her premium,....	.38
" E. King, M. D. Books.....	10 00
" Dennis Hardin, Esq., Books,.....	10.00
31 Vols Books from last year,.....	31 00
	$755.25
Expense of Fair and Premiums,.....	$402.47
Balance on hand,.....	$352 78

The Society voted to enlarge their Tent to 200 feet long by 40 feet wide; this seeming to be a necessary size to accommodate the increasing patrons of our home show; the good effects of which are to be seen not only at our exhibition, but upon very many farms in our town.

The briars and elders are giving place to more valuable crops—sleeker and better proportioned kine graze the fields—more spirited horses champ the bit and paw the earth of our streets—larger and more fat porkers grunt in the pen—richer cheese lie on the shelves, and more golden butter tempts the palate of the lovers of good living. Add to this the good feelings and honest pride begotton throughout our town, and it pays good interest. A. L. SAUNDERS.

Barn with Basement or Cellar.

MESSRS EDITORS—I send you a short description of a barn, in answer to an inquiry in the Country Gentleman of Feb. 1st, which I think will answer the purpose, as there are two within a few miles of me which are much approved. They are about 40 feet in length, 30 feet wide, and 22 feet high from the underground room, whose walls are 7 feet. The bays extend below the threshing floor 8 feet. Under the floor is the granary, with bins for the different kinds of grain, which are filled from the upper floor through small openings; the cleaning mill being set over these, the grain runs into the bins below, saving much labor. The hay is passed down to the stables below, through doors, into perpendicular troughs about three feet square, two on each side of the floor.

The stables are made in from the outside about ten feet, affording a good unenclosed shelter for the stock in the yard.

The threshing floor is ascended from the underground part, by two flights of stairs, the first to the grain room, the other to the upper floor.

The stables are parted by gates made the width of the stable, to swing both ways. The stables are cleaned out by a hand cart. The great advantage of such a barn is the easy descent of all the contents above.

When the hay is below the floor, the troughs are filled through doors which open into the bays. J. B. H. *Newtown, Feb.* 9, 1855.

E. J. MAXON of West Genesee, Allegbany Co., N. Y. states in the *Rural New Yorker*, that he has found from an experience of fifteen years, that currier's oil is a sure cure for foul in the feet.

Harvey Wing's Dairy Room.

During a recent visit to Otsego county, we examined a dairy-room belonging to HARVEY WING, of Morris, combining in an unusual degree the necessary requisites for successful butter making, a description of which may prove valuable to our dairy readers.

The room, (on the north side of the house) is sixteen feet long by ten feet wide, and is situated directly over a cold cellar, from which the air may be drawn at pleasure by means of ventilators, for the perfect regulation of the temperature of the room. The places of these ventilators, (between the room and the cellar,) are shown in the plan Fig. 1, by the dotted lines on each

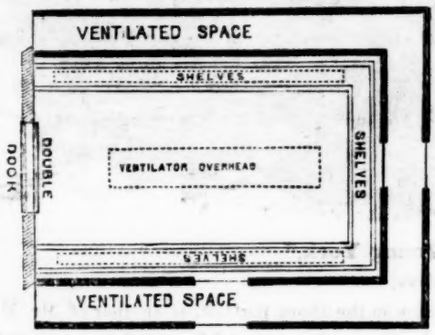


Fig. 1.

side of the room, and they consist each of a single slit or opening, under the shelves, running the whole length of the room, and closed by a board with hinges precisely like a trap-door. These slits are only six inches wide; it is believed that more perfect ventilation would be afforded, and a more complete control of the temperature attained, if they were nine inches or a foot wide.

Overhead, there is another ventilator, also closed by a similar trap-door, 6 or 7 feet long and a foot wide, opening upwards. An elevating stick with holes or notches, enables the attendant to raise them to any desired degree. When the upper ventilator is opened, the heated air of the room passes out by reason of its specific levity, and the cold air from the cellar, immediately rises to supply the space,—in the same way that water rises to fill a pump when the air is drawn out above.

A ventilated space of one or two feet surrounds the room, and prevents the heating so often resulting from confined air in the adjacent walls. This ventilation is only partially effected in the instance before us, a temporary board partition being made to form the outer wall on the exterior side of the room—we have consequently figured in one plan, what it is *intended* to be in this respect, rather than what we found it in actual practice.

The room is entered by a double door, the outer being a tight one to exclude hot summer air, and the inner, of lattice or wire-gauze, to admit cool night air when necessary.

The shelves are not flat boards, as usually constructed, but are formed of two narrow strips of inch board on edge, on which the pans rest, thus admitting a free circulation of air on every side. The mode of constructing these shelves is shown in figs. 2 and 3. Fig. 2 exhibits the upright board support at the ends of the shelves and at intervals of five feet between; the notches being made on each side to receive the horizontal strips which form the shelves. Fig 3 shows a portion of the shelves completed. A space is left between them for the side window.

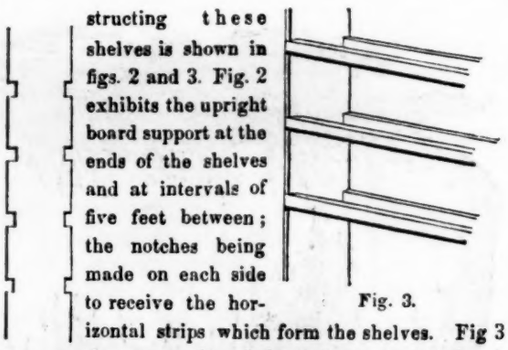


Fig. 3.

Fig. 2.

The strips forming the shelves are 9 inches apart outside for each, and each strip one by two inches, set on edge. The shelves are eight inches apart, or with 6 inches of clear space between them for the reception of the pans.

It is found of great importance not to fill the pans to more than one half their capacity—one third is still better. The dairy, consisting of about 15 cows, requires nearly 200 twelve-quart pans at the season when milk is most abundant, the rising of the cream continuing longer than is common, on account of the perfect control of temperature which is secured by the ventilation of the room. There are eleven shelves on three sides, with the exception of a space for windows, and they are capable of holding 250 pans if required.

As a proof of the superiority of this dairy room, nearly twice as much butter is made here, as at the dairy of a neighbor with an equal number of cows, but with only ordinary arrangements.

H. Wing uses the thermometer churn. He formerly employed a large dasher churn, which was worked with great labor. When he first procured the thermometer churn, he was assured by the vender, as one of the conditions of purchase, that it would save one pound of butter in ten. He took it on trial, and performed the experiment three times, by dipping equal quantities of freshly stirred cream alternately into this and into the dasher churn. The thermometer churn retarded the production of butter by the more perfect regulation of temperature, and at the three different churnings, gave uniformly about 20 lbs. of butter for 18 lbs. afforded by an equal quantity of cream in the dasher churn.

Cultivation of Rape.

Mr. BARTLETT also states in the same paper, that he has tried rape, and thinks that "it will prove a most valuable plant for feeding milch cows during our unusually dry autumns." We do not see why it might not. Mr. B. says:

This plant is extensively cultivated in various parts of Europe, for the sake of the seed, from which oil is extracted by grinding and pressure, and is used for the purpose of illumination. It is extensively used in England for the succulent food which its thick, fleshy stem and leaves supply to sheep and cows when other fodder is scarce. Large quantities of this feed are annually imported into the United States, at an expense of $3 or $4 per bushel, for feeding cage-birds.

A quantity of rape seed has been imported by the Light House Board, with a view of testing the practicability of cultivating the plant in this country for the purpose of manufacturing oil. The seed is distributed in small packages from the Patent Office, among the farmers, who are requested to give a fair trial both in spring and autumn. We presume there is yet a quantity at the Patent Office, and any one wishing to experiment with it, could procure seed by writing to one of our Representatives in Congress.

Hardy Pears.

MESSRS. EDITORS—Allow me to inquire through the columns of the Country Gentleman, what varieties of Pears would be likely to prove hardiest, and best adapted to the cold latitude of Northern New-York. Also whether Dwarfs upon Quince Stocks, are as hardy as those upon the Pear, and as well adapted to cold latitudes. By answering the above inquiries you will much oblige A NORTHERNER. *Lowville, N. Y.*

Most varieties of the pear will endure a severe degree of cold, but we would name among those promising the best success, Osband's Summer, Tyson, Seckel, Flemish Beauty, Virgalieu, Vicar of Winkfield, Duchess Angouleme, Napoleon, Oswego Beurre, Onondaga, and others. Dwarfs, so far as our observations go, are as hardy as standards Some years ago, we knew many young standards destroyed by a cold and wet winter, when the dwarfs entirely escaped; while more recently we have many cases in some parts of the country, where standards have not suffered nearly so much as dwarfs. On the whole there is probably but little difference in this respect.

Transplanting Large Trees.

MESSRS. EDITORS—Can you not give in your paper, directions for transplanting *large* forest trees, such as ash, maple, elm, &c. The Western people are behind the age in their mode of beautifying lawns, and directions for proceeding properly in the above matter would do us good. I wish to know how to transplant a tree of some size and *make it grow*. W. W. B. *Keokuk, Iowa.*

The great secret of success in transplanting all trees, is to secure as large a portion of the roots as practicable—other requisites, such as security from drying, mutilation, &c., and filling evenly and compactly with fine earth, among the well spread fibres, being observed.

Some trees, as the hickory, send down long tap roots, and consequently a hole almost like a *well*, must be dug in getting them out. Others like the elm and beech, spread widely, and such must be secured by digging a broad circle. Trees which readily throw out new shoots in replacing lopped branches, (such as the sugar maple,) may have large portions of the top removed, to balance any necessary cutting off of the roots; others, like the elm, which do not readily reproduce branches, should be more sparingly pruned, and more care be taken to secure a large circle of roots. This will also help to brace against the wind; the swaying of the trunks of transplanted trees being a a most fruitful cause of failure.

Trees of much size may be safely transplanted by adopting the following practice. One, two, or three years before removing, dig a trench all around the tree, so as to cut off all the roots at a proper distance from it—this will cause numerous shorter ones to spring from the larger roots, and when the tree is removed, a much fuller mass of fibres within the dug circle will be obtained and but little check given to the tree in consequence. The safety will be increased if this mass of fibres is removed with a *ball of earth*. If the trench has been dug or renewed and the hole dug for the tree, the previous autumn, the ball of earth and tree may be carried on a sled in winter in a frozen state. It should be remembered to make the hole considerably larger, say one foot all round, than the ball, and fill this space with rich soil. Remember also to mulch the trees before midsummer.

With these directions, fully and faithfully performed, the most difficult trees may be safely removed. It may be proper to add, that trees from *open ground* will succeed by far the best.

The Best Hardy Grapes.

MESSRS. EDITORS—I wish you would favor me through *the Cultivator*, with some information in the culture of grapes—which is the best variety? Where can they be obtained? What is the manner of planting—and what time should it be done? And what would be the probable cost of starting an acre? A SUBSCRIBER. *Montgomery Co., N. Y., Feb.* 14, 1855.

The best hardy grape for this state north of 42°, is the Isabella,—provided it can be trained on the south side of a wall or building or other warm place and be kept properly summer pruned. Judicious pruning will hasten the ripening at least one or two weeks earlier than by neglected pruning. The *Clinton* is a very hardy free-growing vine, but the grape is rather small, and of second-rate quality. The *Diana* is about two weeks earlier than the Isabella, hardy, as large as the Clinton, and far better in quality. The *Concord*, a new sort, is also very hardy, a free grower, bearing very large and exceedingly showy bunches, of good quality, but not equal in flavor to the Isabella and Diana. It is said to be even earlier than the Diana, which we question, but it will undoubtedly prove a very valuable sort for all the northern portions of the Union, especially for marketing. The *Elsinburg* is an excellent hardy grape, but quite small.

For vineyard planting, where each vine is trained to a stake, 1500 to 2000 vines are required for an acre. A fewer number is needed for trellis training. The Isabella and Clinton are usually sold at $12 or $15 per hundred, and probably lower by the thousand; the Diana for about one dollar each, and the Concord at three dollars—too high for vineyard planting at present. All may be had of most of the principal nurserymen. Dr. R. T. Underhill, of Croton Point, N. Y. deals largely in Isabella vines, and furnishes minute practical directions to purchasers.

The soil should be deep, loose, and very rich—properly subsoiling, and manuring by very thorough intermixture, would cost fifty to a hundred dollars per acre. The vines are planted in spring. The pruning and management we have already described in an article published a few weeks since.

FALL OF BLACK SNOW.—The *Ohio Farmer* contains a communication from Prof. FAIRCHILD, of Oberlin, Ohio, stating that, on Feb. 7, they had in that region a fall of dark colored or sooty snow. The crystals were in the form of dense icy pellets, about the twentieth of an inch in diameter. It fell to the depth of nearly an inch and when melted it yielded about a half inch of water. The snow had a distinct smoky taste, and on filtering it through paper a dark sooty substance was obtained.

Inquiries and Answers.

C. W. SANFORD.—We would have written you on the subject of your inquiry, had you given your address. Mr H. L. Emery can furnish the things you require.

☞ We are frequently greatly annoyed by the failure of our correspondents to give their post-office address. Whoever writes to a publisher, should head his letter with the name of his post-office, and the state in which it is located; and it would be better in most instances to add the county; but instead of this we frequently receive letters dated "Cottage Farm," or "Washington county," and more frequently without any date, and sometimes without signature. For instance, a person recently sent us an order for papers without any date to his letter; and it was not until he wrote a *third* time, that he furnished his post-office address. We have now a letter before us, which reads as follows:

"For the enclosed money send one copy of the Illustrated Annual Register."

This, so far as it goes, is a model letter—brief, and to the point; yet lacking as it did, the writer's signature and post-office, it entirely failed of its object.

GUANO FOR SPRING WHEAT.—*Wm. J. Pettee, Lakeville, Ct.* Sow it at the time of sowing the seed, and harrow it in thoroughly. If all the lumps are broken, and it is sown broadcast in this way, it does not injure the seed. From 200 to 400 lbs. per acre is the proper quantity.

GEDDES HARROW—Will some of your correspondents give me the dimensions of the Geddes Harrow, viz. length of the side pieces and the angle at which they are joined to the drawing bar. I want to have one made. L. E. M.

TOP DRESSING—*Wm. E. Wheeler, Warren, N. Y.* We know of nothing better than good Peruvian guano, sown either in the fall, or as early in the spring as possible. See article on this subject in the last number of the Country Gentleman.

WARTS ON THE HEAD OF A STEER.—A Subscriber has a steer that has several warts on his head, and would be glad if some of our experienced correspondents would inform him how to cure it.

FIELD ROLLERS.—*G. F. Saxton.* We do not know of a good field roller for sale that we can recommend to you. Farmers usually make them themselves. We shall be obliged if some of our correspondents will give a good method of making them.

P. S., Valley Falls.—For the general purposes of the American farmer, we should prefer Johnson's Encyclopedia to the Book of the Farm. Schenck's Gardener's Text Book, would probably suit you, for a work on the kitchen garden. We thank you for the extract you sent, but we have little room at present for extracts from books.

WHAT GUANO DO YOU USE?—According to the analysis of Dr. ANDERSON, chemist to the Highland and Agricultural Society of Scotland, while the Anagamas guano, contains more than 20 per cent of ammonia the Saldanha Bay contains less than 2 per cent. Then, when the kind friends of agriculture wish to enlighten us about the effects of guano, is it not important that they should *always* tell us what kind of guano they used to produce the effects which they describe? ASA M. HOLT. *E. Haddam, Conn.*

In giving the results of experiments with guano, it is, as Mr. HOLT observes, very important that the kind of guano used should be stated; but we are far from having all the data necessary when we are told that Peruvian, Mexican or Saldanha Bay guano is used, for it is well known that *genuine* Peruvian guano differs very materially in composition. We have known one cargo of Peruvian guano to contain *as much again* ammonia as another,—and their value is unquestionably in proportion to the ammonia they contain,—and yet they were sold at the same price. It is seldom that any two cargoes are alike in the percentage of ammonia, and we have known the top portion of a cargo to contain 18 per cent and the lower portion of the same cargo only 16 per cent. These cargose were imported into London by ANTHONY GIBBS & SONS, and there can be no doubt each of them was the genuine article. How important is it, therefore, not only to deal with honest men, not only to get the genuine article, but to be sure that the article is of the first quality. There is no better practical way of doing this than for the dealers to have the cargoes analysed before purchasing, and then warrant them to contain a certain amount of ammonia. For the past few years guano has been so scarce that dealers were glad to take anything they could get that was called and looked like Peruvian guano, but now there is a large quantity on hand, they should be more particular, and buy only such as analysis shows to be good. This country is destined to use more guano than any other, and it would be well for dealers to look to this matter in time, and build up a reputation for selling only the best article.

CULTURE OF CRANBERRIES AND WILLOWS.—I will be very much obliged to you or some of your subscribers, for information in regard to the best crop for a swampy piece of ground. I have been advised to put on cranberries or willows. Where can I get the seed or bushes, or which is best, and how are they cultivated and fitted for market; what quantity of either can be raised to the acre, and what is the expense, &c.

Willows grow very thick on the margin, and, where I have cultivated, potatoes and oats do very well. W. J. HAYWARD. *Schroon Lake, Essex Co., N. Y.*

Will some of our subscribers answer the above?

ANALYSIS OF FRUIT.—*R. H., Mobile.* Do you wish for analysis of the trees, or simply of the fruit? The leaves, the bark, the old wood, the young wood, and the fruit, all differ materially in chemical composition—that is to say, *while all contain the same elements*, these elements are found in different proportions in different species of trees, and in the different parts of the same tree. Many appear to suppose that potash is found in one tree, and lime in another, soda in a third, and phosphates in a fourth, &c., and that these substances would therefore be specific manures for the trees in which they were found. Others, while they admit that all trees contain the same elements, think that, if potash is found in greater proportion in one tree than in another, that tree will require a soil or manure in which potash exists in larger quantity than in the soil or manure best adapted to the growth of the tree containing little potash. And so of lime, phosphates, &c. We cannot at this time go into explanations on this subject, but we would say that, as far as we can learn, *there is not one single well established fact that confirms this deduction*, while there are many which tend to show its unsoundness.

TURNIPS.—What 2 or 3 varieties of *early* Turnip would you recommend, and what time are they fit for the table?

What variety of *yellow* Turnips would be best to sprinkle among corn at the last hoeing, say about the 1st July, and what yellow kinds for August sowing?

Can the seeds of Ruta Baga be obtained, the produce of which will not be liable to be infected by the rot? Mine have been so infected for the last three years; seed obtained at the seed-stores, Hartford. A SUBSCRIBER. *Watertown, Ct.*

The earliest turnips, so far as we know, are the *Early White Dutch* or *Strap-leaved*, and the *Early Red-Top*, the latter only differing from the former in the red or purple skin above ground. Both are distinguished for their small narrow leaves. Under the most favorable circumstances, and with good culture, roots fit for the table may be produced in six weeks from sowing. The *Early Yellow Dutch*, the *Yellow Stone* and *Malta*, are much esteemed by some, but our expe-

rience is not sufficient to enable us to pronounce on their relative merits.

We hope some of our correspondents may be able to answer the rest of "a subscriber's" inquiries.

HEDGE PLANTS.—*N. J B., Ky., and G. D, Carlisle N. Y.* It has been *proposed* to raise osage orange plants by cuttings, but we have never known it to succeed well; and by cuttings of the roots, but this proves only partially successful. It is much the best and cheapest to raise from seed. The same remark will apply to the English hawthorn. We cannot recommend the latter for American Hedges; for although we have examples of old and successful hedges in many intances, yet as it has suddenly failed from the attacks of insects in many others, it cannot be safely relied on. Seeds of the osage plant may be had at the principal city agricultural seed stores.

FERTILIZING VALUE OF CLAY.—I would like to ask you how much value you put upon clay applied to very dry sandy ground. Will it pay to draw it? M. S. K. *Chicopee, Mass.*

The value of clay depends very much on its composition. If the clay contains considerable lime, a little phosphoric and sulphuric acids, silicates of potash and soda, &c., it would most probably *pay well* to draw it on to dry sandy ground. We should have doubts, however, whether ordinary clay drawn on to sands, simply for mechanical purposes, would prove profitable in this country. With a rich marl, containing considerable clay, the case is very different, since you get not only the mechanical effect desired, but also a large amount of valuable chemical fertilizers.

BROOM CORN. *A Subscriber, Madison, N. Y.*—There can be no question that "the soil and climate of this country" are well adapted to the cultivation of broom corn. Its profitableness depends on the price of the broom, which is liable to much fluctuation. Any soil adapted to Indian corn, will grow broom corn. It is generally cultivated with most success on low, rich alluvial lands. The seed is drilled in about 3½ feet apart, as early in the spring as the soil can be got ready. As soon as the corn appears above ground, it is hoed, and afterwards the plants are thinned out so as to leave them 2 or 3 inches apart. The horse cultivator should be kept constantly going, and the weeds near the plants be cut up with the hand hoe. After the last hoeing, a shovel plow is run through the rows to earth up the plants a little. We should be glad if some experienced cultivator would give us an article on broom corn.

BEET SUGAR.—Will you have the goodness to answer through the columns of the Country Gentleman, the following inquiries:—1. What is the exact mode of making Sugar from the Beet? 2 Which kind of beet is the best, for making sugar, and where can the seed be obtained? W.

We have already (p. 118 of Country Gentleman.) given some reasons why the successful manufacture of beet sugar will not probably be soon adopted in this country. Since penning those remarks, we find the *actual cost* of an acre of sugar beets, raised by HIRAM FERRY some fifteen years since, at Northampton, on the low lands of the Connecticut river, was $42, per acre, and without any profit, $3.25 per ton. Prices were then much lower than now, and they could not probably be had now for $5 per ton, which only confirms our opinion that their culture will be repaid only by feeding to cattle.

The richest and sweetest beet is the White Silesian, which grows nearly or entirely in the soil—but the mangel wurtzel is much the most productive, and is said to afford the greatest return per acre. Seeds of these varieties may doubtless be had at the principal seed-stores.

The manufacture of the sugar from the beet is difficult and complex—incomparably more so than the manufacture of the best maple sugar. The principal operations are washing, rasping, grating; pressing; clarification, filtration, evaporation, crystalization. So powerful is the machinery needed for rapid rasping (to prevent fermentation from delay) that a speed of 800 to 1000 revolutions are needed per minute, or about 15 per second! Our correspondent will find an *outline* of the process of manufacture given in the last volume of the Transactions of the N. Y. State Ag Society, in about six pages, beginning at p. 124. A fuller account may be found, comprised in some 40 pages, in DAVID LEE CHILDS' book on this subject published in 1840, and now out of print, the fullest American book we know of on beet sugar.

CULTIVATION OF TEAZEL.—Will you or some of your numerous readers inform me of the best method of cultivating the teazel used in woolen factories for the dressing of broadcloth, and where can the seed be obtained. C. W. ROCKWELL. *South Hartwick, N. Y.*

HAWTHORN HEDGES.—I wish to inquire through the columns of your valuable paper, for information in regard to Hawthorn Hedges—if they are profitable to raise for fencing purposes. I should like to know what plants are the best for fences, and what for ornamental use. Is it better to raise a hedge from the seed or from plants? A FARMER. *Hadley, Mass.*

Will some of our correspondents answer the above; and also give us their experience with the buckthorn as a hedge plant.

AGRICULTURAL SCHOOL.—Can you inform me of the whereabouts of a good Agricultural Academy, where Agriculture is taught in all its branches, practical and theoretical, applicable to the middle States? one where common school studies are also taught, but where the chief study and employment is Agriculture; having a farm attached, which the scholars are taught to properly cultivate and manage, with proper buildings, live stock, implements, apparatus, &c., amply sufficient to give the scholar a clear and thorough knowledge of the object in view? I mean a place from whence, after the end of a reasonable time of diligent study and observation, the student can come, fully qualified to manage a farm profitably and effectually? Also the name of the principal, charges of tuition (which must be moderate,) and other particulars.

If the editors of the COUNTRY GENTLEMAN will answer the above through the columns of their invaluable journal, they will receive the heartfelt gratitude of A BOY OF 14 YEARS, who is "*bound*" to be an Agriculturist worthy of the name. *New-York, Feb. 27, 1855.*

We feel humbled in being obliged to inform our enthusiastic young friend, that there is not, on this broad continent, one solitary institution where young men can learn the practice and science of agriculture. The legislature of Michigan at its last session, appropriated a considerable sum, and $6000 per annum for the purchase of a farm, not less than 500 or greater than 1000 acres, and for the erection of suitable buildings, the payment of Professors, &c, and we shall probably have one agricultural institution where young men can get the knowledge they now sigh for in vain, in the course of a year or two. Whether anything will be done in our own legislature this year for the advancement of the great cause of agricultural education, remains to be seen.

MAGNOLIA CONSPICUA.—One question for the Country Gentleman. In that paper of Jan. 4th, I notice a description of the Chinese white Magnolia. How could I possibly obtain one? Does the seed come to perfection in this country, so that they can be propagated in that way? Or can they be obtained only from slips, or grafts? If so I despair. C. A W. *Wis.*

Plants may be procured of the larger eastern nurserymen. The only way to propagate it, so far as we know, is from seed, or by budding it on stocks of the acuminated or cucumber tree. The budding is a difficult operation, and the seeds are scarce. We see the

seed are advertised in the seed catalogue of Meehan and Saunders, of Germantown, Pa.

OSAGE HEDGES.—How should the Osage Orange be set out—in single or double rows; and how trimmed for a durable fence? W.

We like the single row best, as admitting of easier cultivation while young. The plants may be dibbled in, if only a year old, with great ease and rapidity. If older they must be set in a furrow with a spade. They should be about eight inches apart. They should be so selected that those of the same size shall be together, so that the large ones shall not overshadow and retard the smaller ones.

When set out, they should be cut down within two or three inches of the ground—the next year six inches higher, the third year nine inches higher still, and so on. A good thick hedge can be made in no other way; and those who are afraid to slash, should never plant. We do not like cutting in summer—it checks growth.

Good, clean, mellow cultivation must be given for several years, or until the hedge is cattle-proof—which under best care, will be in five years—with neglected tillage about 10 years—and with no cutting back, never, probably.

SEEDING LAND DOWN TO GRASS.—*A Lewis Co Subscriber.* The best spring crop with which to sow small seeds is barley or wheat. Oats grow too thick at the bottom, and often smother the young clover and grasses. Ashes or lime, harrowed or cultivated in, would probably prove beneficial. We cannot say whether horse or cow droppings are most valuable; *it depends on the nature of the food.* If the horse eats oats and hay and the cow straw, the horse dung will be much the most valuable: if the food was reversed, the quality of the excrements would also be reversed. A good summer fallow, or two or three well cultivated hoe-crops, is the best method of destroying quack grass.

BRICK AND TILE MACHINE.—*A Subscriber, Richfield Springs, N. Y.* Platt and Bros. Canandaigua, N. Y., manufacture Tile and Brick Machines. (See advertisement in this number.) They are also made at Waterloo, and many other places, but we cannot give the names of the manufacturers; they would do well to advertise in our columns.

POULTRY PAPER.—*J. A. B, Glennville, Ala.* We know of no paper published in this country, exclusively devoted to poultry. The *Poultry Chronicle*, published by BRADBURY & EVANS, No. 11, Bouverie Street, London, is just the thing you want. They will send it you a year for $4 50, and the postage will cost you two cents per week. We can send you by mail prepaid Browne's Poultry Book for $1.25.

TERRA-CULTURE.—Russell Comstock is here giving lectures on terra-culture at $2 each. We think this rather high. Can you not give us a few hints on this subject? J. H J. *Valatie, N. Y.*

We have heard Mr. Comstock "disclose the disclosures." For six long weary hours we listened, expecting every minute to hear the profound secret revealed. After the Professor concluded, we had to ask him, in good faith, what, in all the array of incoherent words we had been listening to, he considered his secret. By much questioning we got at it. It appears to be this. The point of union between the roots and stem of the plant, and which in trees is usually called the collar, the Professor has discovered to be the "*seat of life.*" If the tree be planted too deep, the *seat of life* changes its location, coming up to the surface, while the part of the stem between the old seat of life and the new, *throws out roots*, and the original roots and all the wood formed from them, decay. This is the whole secret. The Professor says some good things against planting too deep, that may be worth $2, but which will be found in any treatise on fruit culture. The pretension that the potato disease, the wheat weevil, the yellows and curl in the peach, &c., are due to a violation of Mr. Comstock's law, is the sheerest humbug. In fact there is no such universal law as he pretends to have discovered.

GRASSES FOR NEW ENGLAND.—Will you or some of your readers give, through your columns, a list of the best six grasses for New England, to seed with hill pastures, or arable land. May the various seeds be sown at the same time, and what proportions of each per acre. An early answer would much oblige many of your patrons. V.

Will some of our experienced New England correspondents answer the above.

HOMINY MACHINE.—In reply to "M. B" of Frankfort, Ky., I would say that I saw a Hominy machine in operation, that runs with a band, double gear, that makes as pretty hominy as I ever saw—it hulls the corn clean, winnows it, cuts out the hearts and cracks up the grains well. It will make a peck every 10 minutes, or 1½ bushels per hour. The price is $40 I think. They are manufactured by J. M. Atkin & Co., Machinists, Dayton, Ohio. They will move to Xenia, on the first of April. I send you a sample of the hominy. The machine is simple, works well, and one I was highly pleased with, and is the only one that I have ever seen which did its work well. A. FAHNESTOCK.

L. M. C., Aylmer, C. E.—The price of Thomas' Farm Implements is $1.00. We cannot answer your other inquiries. The manufacturers will be glad to give you information in regard to their machines.

DRAINING PIPES.—*John Davis, Lexington, Mass.* J. Appleton & Anderson of this city manufacture the large tiles for draining cellars, &c. The price is $80 per 1000.

To make Sharp Mustard.

It is a curious fact that mustard seed *whole* does not contain any *volatile oil.* This is only developed (and very gradually) if the powdered seed is moistened with cold or lukewarm water. The peculiar constituent of mustard, *myronic acid* is changed under the influence of the albuminous matter of the moistened mustard-powder, into the volatile oil of mustard. Hence, if pungent mustard is desired, it should always be moistened with water some time before it is used. Hot water, since it coagulates the fermenting albuminous matter, should not be used.

To make Corn Bread.

Three pints meal, 1 pint of flour or shorts, 1½ pints buttermilk, 1½ do. sweet, two-thirds of a teacup of molasses, 1 table spoonful of saleratus. Bake as soon as mixed. Water will do in place of the sweet milk. C

To Cure Croup.

MESSRS. EDITORS—Several of my children have at different times been suddenly and violently attacked with croup, and have been cured in the following manner:

Divest the child of all clothing about the neck and chest; then bathe the throat and upper part of the chest *freely*, with *cold* water. Let this be done by pouring, sponging, or very frequent application of wet cloths. While this is being done, prepare *warm* water, and immerse the feet in it. This gives relief in a short time, when the child should be put quietly to rest, with a jug of warm water to the feet, when perspiration and sleep soon follow.

Any one can follow these directions *immediately*, and it is a complaint which is soon fatal, unless checked in the early stages, and many precious lives are lost because a physician is not at hand, until too late to save from suffocation.

I have often tried this, and never failed to give relief in one hour, often in half that time. E. MARKS. *Fairmount, Onondaga Co., N. Y., Feb. 5, 1855.*

First Year's Experiences in Farming—No. 3.

"Nature," says Varro, "has pointed out to us two paths which lead to the knowledge of agriculture, viz., Experience and Imitation. The ancient husbandmen, by making experiments, have established many maxims. Their posterity for the most part, imitate them: we ought to do both, imitate others and make experiments ourselves, not directed by chance, but reason."

If this reasonable advice of the celebrated Roman writer, was generally followed, how different would be the results of farming! If the spirit of progress and improvement were once infused into farmers, what attainments in the science of agriculture would immediately follow! The servile imitation of our fathers would cease to be characteristic of modern agriculturists, and they would step forth confidently, into that vast field of knowledge and science, which invites them on.

But this advice is not heeded The worse habits of the olden time are imitated by a large class of farmers, while many of the better practices are obsolete.

My Neighbors.—It has been among my most painful experiences during the year past, to contrast the farm-practices of my neighbors, with the approved husbandry of the present day. One would suppose that in this county, which boasts of some of the best farmers in the state, the class I allude to, would be very small. Such is not the case. We have many such—short-sighted, hand-to-mouth farmers. Let me mention some of their practices and let me ask your readers if similar practices do not prevail around them.

Treatment of Pasture Lands.—As soon as the snow has disappeared in the spring and before the grass is actually growing, my neighbors on both sides of me turn their cattle upon their pastures. The reason for this is, as they say, "they get their own living." The cattle ramble over the whole fields, their feet penetrating several inches into the saturated earth and cutting up the whole surface, in a most ruinous manner. Day after day, have I seen this continued in the early spring, long before it is possible for cattle to obtain nourishment from what they find. No remonstrance or argument can convince them of the reckless waste of such a course, *because* it has always been so, *since they knew the farm.*

Meadows.—If this practice was confined to the pastures it would be easier to forgive the folly. But alas! a similar habit prevails as to the meadows. Almost immediately after the hay crop is removed, the whole stock of the farm, is let loose upon the meadows, and they are regularly cropped, until the snow comes to cover them from their pitiless tenants. Besides bareing the earth to the pinching frosts, which throw out the grass-roots in the spring, the meadows are so closely and perseveringly cropped, that the catttle actually pull out a large proportion of the roots in their eagerness for food.

If perchance a January thaw comes or the snow melts away during the winter, so as partially to lay bare the fields, the cattle are turned in, with the greatest deliberation and regularity, until the protecting snow again covers the earth. During a thaw this present winter, I have seen both my neighbors above referred to, turning their whole stock of cows (from 16 to 20 each) upon their meadows, not for want of hay and fodder enough, but that they might save more hay to take to market. A policy more short sighted cannot be imagined; and the only excuse for it *must* be, that they do not reflect, but imitate in a most servile and stupid manner, the old custom of the farm and place.

Watering Cattle.—My friend west of me keeps 25 cows, 3 horses, &c. During all this snowy, icy winter he has watered his cattle at the road side, several rods from his barns, and has spent more time cutting ice and shovelling snow to open his watering places than it would require to dig a good well in his barn-yard. What labor and trouble to get water! What waste of manure—scattered as it is along the street and around the watering places! What neglect of his cattle, to leave them to such burning thirst, as will drive them through the deep snow and pelting storms for water! What want of care and thrift! And yet all this is suffered year after year.

Yarding Cattle.—My hard-working neighbor last named, has no *regular* barn-yard. He has a sort of fence about a small enclosure, but the boards are always off in some places and the bars never put up. His cows may be seen any pleasant afternoon hovering together in his front yard of his house, which has a south-east exposure, or wandering about the street.

What miserable indifference to the comfort of his herd! What actual loss of manure!

I have no fear of offending my neighbors by my free speaking, for they do not believe in agricultural papers, and consequently do not take them. CIVIS. *Utica, Feb.*, 1855.

Sheep Husbandry in Indiana.

In a letter on business, I. O. ROSE of Fish Creek, Steuben Co, Ind. gives us a little of his experience in sheep husbandry. He thinks the pure Leicesters the best breed of sheep for mutton and wool combined, and the best cross, the Leicester with the common sheep, "for what they lack in quality of wool they more than make up in quantity." They are more prolific and the lambs are more readily raised than the fine wooled breeds; and are, he thinks, on the whole, more profitable for the small farmer.

Mr. ROSE, two years ago, wintered 30 ewes and one buck of this cross breed. They dropped, in the spring, 49 lambs, and raised 43. The 31 sheep averaged a little over 4½ lbs. of well washed wool, which was sold for 46 cents per pound; making a little over $2. per head. The following December, 40 of the lambs were sold for $100. The following spring, the 30 ewes dropped 44 lambs, and raised 39. They gave, as before, 4½ lbs. of wool each, which sold for 30 cents per pound. In the two years he has lost only two sheep. Mr. R. gives his sheep "good hay, but no grain, shelters to run under during winter, and in summer, good pasture and plenty of salt."

Notes for the Month.

New Work by Liebig.

Prof. LIEBIG has prepared for the press a new work, "On the Relations of Chemistry to Agriculture, and on the Agricultural Experiments of Mr. J. B. LAWES," in which he reviews with his distinguished ability and power, the criticisms which have been made upon his views as published in his Letters some years since, and particularly those of Messrs. LAWES, GILBERT and PUSEY, published in the Journal of the Royal Ag. Society, and sets forth his matured opinions on the Relations of Chemistry to Agriculture with a clearness and force which will not fail to attract the earnest attention of all interested in the progress of scientific agriculture.

Desiring to have this work issued simultaneously in Germany, England and the United States, it has been translated from the original, at the request of Prof. LIEBIG, by our correspondent Mr. S. W. JOHNSON, who has sent it to us for publication in this country.

In this book, Baron LIEBIG lays down in clear, distinct and simple propositions, all the conclusions obtained in his earlier works, *giving their entire substance*, so far as it bears upon the subject in hand, *in a few pages*, and at once possessing the reader of a full understanding of the merits and demerits of the case. Opening with some explanations of the true meaning and relations of what constitutes *theory, practice* and *experiment*, he enables one immediately to grasp the further development of his views, before he goes on to apply them to the experiments of Mr. LAWES; which being, in his own language, "distinguished above all others by their extent and duration," and at the same time giving rise to a theory entirely different from his own, merit a most thorough examination.

LIEBIG's theory, may be summed up in a few words:—"That, in ordinary farm management, presupposed that the composition and character of the soil is right, *such a quantity of ammonia will gradually accumulate in the soil*, as, considered in relation to the previously present soil-ingredients, will be *more than sufficient* to give them their maximum of efficacy." Or, in other words, that to insure the *continuance of the fertility* of a soil, it is only necessary to *replace those mineral ingredients* which are taken off by the crop, as shown in analysis of its ash; and that, consequently, *increased fertility* is to be obtained by further additions of the proper mineral, atmospheric and plant-food.

The experiments of Mr. LAWES, which, it is contended, controvert the theory of LIEBIG, are the subject of review in the book under consideration; and in a manner, both adroit and plausible, however well it may be able to bear a thorough sifting, LIEBIG turns the weapons of his antagonist against himself, and claims that by his own arguments, the very things that he seeks to prove are disproved, and those that he would confute are established. Whatever may be our opinion of the correctness of LIEBIG's views, as defined in it, we can but admire the simplicity and directness with which they are laid down; the admirable manner in which the whole subject, from beginning to end, is brought within the comprehension of the simplest understanding, and the great array of facts and arguments, which, while they all bear upon the subject in dispute, yet afford to every man, aside from this, a field of thought and a fund of information, rarely found in the most bulky volumes. While these are of a kind which the farmer constantly needs and will constantly use,—on the decision of the case in hand, must depend evidently every means by which we would raise Agriculture to the rank of a Science; by which we would make its results no longer so entirely dependant on chance and season and expensive systems of rotation or manuring, but rather calculable and certain, and attainable by all "according to scientific principles, and not according to mere recipes."

☞ *See advertisement on page* 136 *of this paper.*

MR. MORRIS' PRIZE ANIMALS.—The reader will find in this number, a portrait of another of Mr. MORRIS' beautiful prize animals; and we cannot refrain from the expression of our gratification at the success which has thus far attended Mr. M.'s efforts to present to the public correct likenesses of the best specimens of his herds and flocks. The drawings are highly creditable to the artistic taste of Mr. PAGE, and show that he possesses the ability to supply what has hitherto been a desideratum in this country. We are glad to hear that he has been engaged to take a large number of portraits for the new edition of Mr. ALLEN's Herd Book; and if he succeeds as well as his present efforts indicate, they will be a very desirable addition to that work, especially if they are placed in the hands of engravers as competent to do them justice as Mr. J. W. ORR, by whom Mr. M.'s plates have been executed.

TASTE OF TURNIPS IN BUTTER.—A correspondent at Philadelphia writes us that he had abandoned the use of turnips as feed for milch cows on account of the disagreeabte taste imparted to the milk and butter. He met with the following easy method of removing this objection, and has practiced it for five years with perfect success, both with common flat turnips and with ruta bagas: Slice the turnips 12 hours before they are wanted, put them in a heap or basket and sprinkle over them a slight coating of fine salt. After they have lain in the heap 12 hours, mix them well together and give to the cows.

HAY PRESSES.—Those in want of this article, are referred to the advertisement of Messrs. DEERING & DICKSON. Mr. Dederick's Press gives good satisfaction we believe, wherever it has been tried.

THE WINTER IN ENGLAND.—In a private letter from J. B. LAWES, Esq, dated Rothamsted, Feb. 15th, he says: "We are now suffering under the most severe weather I ever recollect at this season of the year. For nearly a month the ground has been covered with snow, and the thermometer ranges from 20° to 25° Faht. [If 20° to 25° *above* zero is severe weather, what would you say, Sir, to 20° to 25° *below* zero? We have been enjoying such a temperature in this state during the present winter. Eds.] Up to Christmas we had unusually mild weather. Last year's wheat crop turns out exceedingly productive. I believe it will average 50 bushels per acre on my farm. On the experimental field the highest yield was over 50 bushels per acre; in fact the total produce was 3292 lbs. of grain and 6635 lbs. of straw, an enormous produce to obtain from one acre of land." It is indeed, especially when we consider that wheat has been annually taken from this field for ten years.

WASHINGTON TERRITORY.—A letter from a subscriber says that the crops in the Territory the past season were good—particularly wheat, which was very fine, as were potatoes also. The writer adds—"The general interests of this young Territory are advancing, slowly but surely. The soil is inviting, and the climate unsurpassed for healthfulness."

FISH AS MANURE.—A subscriber in Worcester County, Mass. writes that in all the towns on the North Shore fish are extensively used as a manure. Most of the fish caught at this season are for salting, and the refuse, which is very considerable, consisting of heads,

back-bones, &c. when mixed with muck and allowed to ferment a few months makes an excellent fertilizer. For corn, potatoes and turnips he has used it, in this way, with great success. It appears to ameliorate the effects of drouth.

RAPE OR COLZA SEED. The Light-House Board has imported some rape or colza seed of the best varieties, and we are requested to state that all who feel interested in its culture can obtain the seed gratis by applying by letter or otherwise to the Light House Inspector's Office, No. 101, Front St., New-York.

SALE OF SHORT HORNS.—We understand Col. SHERWOOD, of Auburn, has recently sold his fine yearling bull "Corn Planter," and three of his fine Durham heifers, to Mr. J. W. WILKIN of Montgomery, Orange Co.

ASHES INJURIOUS TO CHERRY TREES.—A correspondent in Oldham Co., Ky., writes us that last winter he applied to each of his cherry trees about one and a half pounds of unleached ashes, and the next spring, soon after they had blossomed, they died.

FOETID ODORS REPELLING INSECTS.—Some of our correspondents may remember that a few years since much was said about repelling the curculio by means of the odor from fermenting manure. It was found to succeed on trial, to some extent, but a repulsive heap of manure under each tree was found to be not highly ornamental nor attractive to neatly kept fruit gardens. We observe in a late paper, a notice of a successful experiment in repelling "bugs" from squashes by the application of the same principle. The vines had just commenced running, but for two or three days, the bugs had stripped nearly every leaf. As a desperate remedy, a handful of guano was applied to each hill, avoiding carefully the plants. In twenty-four hours not a bug was to be seen, the plants grew rapidly and bore a heavy crop. The experiment was repeated in many cases, with uniform results.

OHIO *vs.* NWE-YORK.—We published some time since, a list of prizes awarded to Col L. G. MORRIS, Mount Fordham, at the last State Fair at New-York. A correspondent of the *Ohio Farmer* furnishes that paper with a list of prizes awarded to Mr. PETER MELENDY, Thin-a-dis-ka Place, Mt. Healthy, Ohio, from which we learn that Mr. M. received in all, 44 premiums; 5 at the National Cattle Show, amounting to $425; 7 at the Ohio State Fair, amounting to $100, and 1 Diploma; and 32 at the Hamilton County Fair, amounting to $64, and 9 Diplomas—making in all $589 in money and plate, and 10 Diplomas. The correspondent adds—"Mr. M. lives on a farm containing one hundred acres, which took a Premium in 1853, given by the Ohio State Board of Agriculture. He also takes 16 Agricultural and Horticultural papers, which is the secret of his success."

FRANKLIN CO. AG. SOCIETY.—The annual meeting was held in Malone on the 11th of Jan., when the following officers were elected for the ensuing year:

President—JAMES DUANE.
Sec'y—D. R. Sperry.
Treasurer—H. H. Hosford.
Executive Committee—C. C. Keeler, M. L. Parlin, Edmund Sargeant, Geo. Churchill, Samuel Field, Allen Hinman, C. J. Rider.
And a Vice President in each town in the county.

HEADING OF CABBAGES AND CAULIFLOWERS.—We see it stated in some of the papers that cabbages and cauliflowers, transplanted twice, with an interval of some two weeks between, will cause them to head much better than without this treatment. It is easy enough of performance, and may be worthy of trial; it is possibly true, that this may be the result.

Several Inquiries.

MESSRS. EDITORS—As the season is approaching for raising calves, will you give us a few words upon the best method? It seems to be the least trouble to let them run with the cow through the summer, but they sometimes get wild, which is a great objection. In the fall of 1852, I was obliged to slaughter a valuable heifer calf on that account. When they are taught to drink from a pail, they become more tame, and are more easily managed. What is the best article besides milk, to give calves that are raising by hand?

As many people on account of the scarcity and high price of straw, are using pine shavings and pine sawdust for litter, will you tell us their value for manure? I believe they are not enumerated in any list of manures I have ever seen. I should consider them an injury to the land, and about as useful as wooden nutmegs and wooden cucumber seeds. Will muck from a pine and hemlock swamp pay for digging and drawing half a mile? ABEL F. ADAMS. *Fitchburg, Mass.*

We will give an article on raising calves in a few weeks. In the meantime we shall be glad to hear from our correspondents on the subject. According to BOUSSINGAULT, pine saw-dust contains about as much nitrogen as wheat straw; so that it is not so valueless a manure as you appear to suppose. On heavy soils too, it would doubtless have a beneficial effect, in rendering them more porous; and in furnishing, by slow decomposition, carbonic acid to the plants. We cannot tell without more data, whether it would pay to draw muck half a mile. We have little doubt, however, if the muck is of average composition, but that it would pay well to use it in compost. It should be thrown up to dry before carting, as it certainly will not pay to draw half a mile the large quantity of water muck contains in its natural state.

FLAG STONES FOR STABLE FLOORS.—In the March number of the Cultivator, I find an inquiry from "A Subscriber," as to the efficacy of Flag Stones for stable floors for cattle. I have used flag stone floors for my cattle for several years and am highly pleased with them. I have tried plank, gravel, and stone floors—the stone is far superior to either of the others.

CORN-PLANTER AND BROAD-CAST SOWING MACHINE.—Such a corn-planter as WM. SMITH inquires for, is manufactured by EMERY & Co. of Albany—price about $15. I have used one for several years. It works well.

A Broad-Cast Sowing Machine is manufactured at East Bloomfield, by P. SEYMOUR, that will satisfy any reasonable man, it sows ten feet wide—will sow all kinds of grain and grass seeds, of any desired quantity to the acre. It will also sow fine lime, bonedust, plaster, &c.—price $55. HENRY KEELER. *South Salem.*

OLD LIME MORTAR.—*E. S. F., Gilsum, N. H.*—The fertilizing value of "old lime mortar, from decayed buildings," is not very great. It may be useful in composts, or pulverized and applied directly to the soil.

HEN MANURE.—Noticing that a correspondent wishes to know the best method of applying chicken manure, permit me to give my views and experience on the subject. From 20 hens, I am able, from year to year, to save about 14 bushels from the droppings of the roost, which is taken up from time to time and put into barrels. This, if mixed with about one-third its bulk of common wood ashes, makes a very valuable manure. I consider it worth $1.00 per bushel. I use it for *corn*, applying a small handful in each hill, covering it slightly before putting in the seed. I consider it equal if not superior to the best guano. BELA E. HOTCHKISS. *Prospect, Conn.*

JAPAN PEAS.—Will you please to inform me in regard to the use of the Japan pea and its cultivation? J.W. Will some of our correspondents please answer?

A State Agricultural College.

The interests of agriculture and of agriculturists have at length been recognized and attended to by the "collective wisdom" of one of the states of the Union. The Legislature of Michigan, during its recent session, has passed an act which makes provision for the organization and operation of such an institution. The act provides that the site for an Agricultural College, shall be purchased within ten miles of the Capitol of the State, of not less than 500 acres, nor to exceed 1000; that twenty-two sections of Salt spring lands or the money arising from the sale thereof, shall be appropriated for the purchase of the land, erection of buildings, and all other necessary expenses to be incurred in the establishment and successful operation of said college; that the purpose of the school shall be to improve and teach the science and practice of agriculture; and that the course of instruction in said College shall include the following branches of education, viz., natural philosophy, chemistry, botany, animal and vegetable anatomy and physiology, geology, mineralogy, meteorology, entomology, veterinary art, mensuration, levelling, political economy, book-keeping, and the mechanic arts connected with agriculture. The tuition is to be for ever free to pupils within the State.

During the summer scholastic term, or from the beginning of April to the end of October, the pupils are to be required to devote not less than three nor more than four hours to manual labor, no student to be exempt except in the case of sickness or other infirmity.

The step which the State of Michigan has thus taken, in advance, we believe, of any of the sisterhood, may well be an occasion of just pride and satisfaction to all the friends of progress and of agricultural improvement within her own borders, as well as a gratification to the friends of agriculture everywhere. In laying the foundation of such an institution a great step forward has been taken,—one that will promote the cause of agricultural education, not only in the State of Michigan, but in other States also. It is earnestly hoped that this College will soon be in successful operation under the charge of such as will take a deep interest in its prosperity, and that multitudes of the young men of the State will resort to it in search of that discipline of mind and that amount of scientific information, which will furnish the means of making the business of the farmer a more interesting, delightful, intellectual and dignified employment than it has heretofore been.

The example of Michigan will, it is to be hoped, act as a spur to some of her sister States. All of them derive a large share of their wealth from the cultivation of the soil, and it is, therefore, a matter of importance to all the citizens thereof, that those engaged in this source of wealth should be well instructed in, and practically familiar with, everything that has any relation to this great public interest. Here, then, is an opportunity for those farmers who are not, like a good many of their brethren, blind to their own interests;—here is an opportunity, also, for the intelligent friends of the farming community, and all who would promote the best interests of their state, to bestir themselves, to act on public opinion, until there shall be a demand for an Agricultural College or some equivalent means of forming scientific farmers, which cannot be resisted.

FRENCH QUINCE STOCKS.

FOR SALE by the undersigned, one hundred thousand Quince Stocks, both Angers and Paris, in cases of five thousand—expected to arrive some time next month from France. Apply to E. BOSSANGE.
Ag't for A. LEROY, Angers,
March 8—w4tm1t 138 Pearl-st., New-York.

CRANBERRY PLANTS,

OF the Egg-shaped variety. They are the greatest bearers—often produce from two to three hundred bushels to the acre, and will keep well if properly gathered, and can be raised on poor swampy lands where nothing el e will grow. Circulars relating to culture, price, etc. will be forwarded gratis to applicants. Also the *New Rochelle Blackberry*—price $10 per doz —$1 single plants. For sale by F. TROWBRIDGE, dealer in Trees, Plants, &c., New Haven, Conn. March 15—w1tm1t.

PERUVIAN GUANO.

THE above is received *direct* from the Peruvian Government, and is warranted FRESH and PURE, of the FIRST quality. The GOVERNMENT BRAND is on every bag. For sale in large or small quantities, at the lowest price.

Superphosphate of Lime, Poudrette, Plaster of Paris, and all other valuable Fertilizers. R. L. ALLEN,
189 & 191 Warer-Street,
March 22—12,14.16.18—m2t. New-York.

Fertilizers—Established Nine Years.

KENTISH'S Prepared Guano—Price $25 per Ton. Superphosphate. No. 1, by the New-York Manufacturing Company—Price $40 per Ton. Both these articles can be had at the Depot No. 159 West Street, New-York City.
March 22—w3tm3t KENTISH & CO.

NOTICE.

PERUVIAN GUANO. As there are various substances now offering for Peruvian Guano, in the New-York market, to avoid imposition, be particular to observe that every bag of the genuine Peruvian Guano has branded upon it,

WARRANTED NO. 1.

PERUVIAN GUANO,

Imported into the United States by

F. BARREDA BROTHERS,

FOR THE PERUVIAN GOVERNMENT.

When taken in quantities from 1 to 5 Tons,.....$48
do do do 5 to 10 do 47
do do do 10 to 15 do 46
A further discount in larger quantity. 2000 lbs. to the ton.

A. LONGETT, 34 Cliff-st.,
March 22—w4tm2t Corner of Fulton, New-York.

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner. DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

To Agriculturists, Manufacturers, &c.

DRAWINGS and Engravings on wood, of animate and inanimate objects, executed at fair prices and in the best style, by J. B. SEYMOUR,
Feb. 22—w&m3m 57 Broadway, Utica, N. Y.
N. B Portraits of animals true to nature.

NOTICE TO THE PUBLIC.

WHEREAS, many Grape roots are now being sold in different parts of the country, for the EARLY NORTHERN MUSCADINE, which we consider the best of all Grapes for this northern latitude—the public are hereby cautioned against imposition; as many of these are spurious, and not the genuine kind, as there has not yet been time to grow many since these first came before the public The subscribers will only hold themselves responsible for the genuineness of such as are ordered to their personal address, or of their legally appointed agents, who will at all times be able to to show proper reference to that effect.

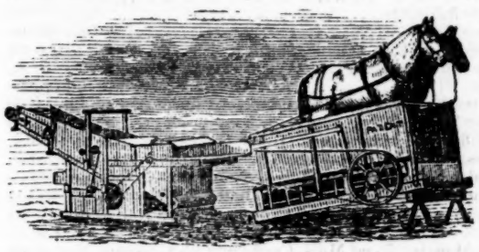
D. J. HAWKINS.
P. STEWART.
New Lebanon, Shaker Village,
March 15. 1855—w2tm2t. Columbia Co., N. Y.

Madagascar or Lop-eared Rabbits.

THE subscriber having purchased of S. V. C. Van Rensselaer his entire stock of Fancy Rabits, now offers a few choice pairs for sale at from $5 to $10, the pair, carefully hutched, and delivered at Hudson. These rabbits are bred from stock obtained by R. H. Van Rensselaer, of Morris, N. Y. from Francis Rotch, Esq, are of sufficient age for breeding, and are warranted equal to any in the country. The colors are various. Among them are several pairs of black and white, which are very pretty.

Also a few fine pairs of GREY SHANGHAI or BRAMAH POOTRA fowls, and eggs of the Black Spanish, Bolton Grey, Speckled Dorking, and Shanghais in all their varieties, including the Golden and Silver Spangled. The latter from the parents of the fowls exhibited by S. V. C. Van Rensselaer in Oct. last at the N. Y. State Fair.

E. G. STUDLEY.
March 15—w4tm1t* Claverack N. Y.



G. WESTINGHOUSE & CO.

CONTINUE the manufacture of Threshing Machines, Clover Cleaners, Wood Saws, &c., at Central Bridge, Schoharie Co., N. Y.

We have improved our Thresher and Cleaner, (and for which we have obtained a Patent last year,) which works superior to anything of the kind in use, and has given entire satisfaction where used.

Our Horse-Power, Thresher and Separator, has the name of being the best machine in use, where known Those wanting machines will be more likely to get them when wanted by ordering them early, as we shall not be able to make more than 100 of them this season. Last year we did not supply the demand by a large number, being unable to get them out in time.

Further information given on application by mail otherwise.

G. WESTINGHOUSE & CO.
March 22—w4tm3t Central Bridge, N. Y.

Choice Field and Garden Seeds,

AT the North River Agricultural Warehouse.

GRIFFING & BRO.,
Feb. 15—w&m2m No. 60 Cortland St., New-York.

North River Agricultural Warehouse and Seed Store.

GRIFFING & BRO., No. 60 Cortland St., New-York.

PLOWS, Harrows, Vegetable Cutters, Root and Bush Pullers, Ox Yokes and Bows, Reaping and Mowing Machines, Corn Planters, Picks, Hoes, Shovels, Spades, Seed Sowers, Corn Mills, Water Rams, Suction, Force and Endless Chain Pumps, Churns, Horticultural Tools, Hay, Cotton and Cheese Presses, Horse and hand hay Rakes, Garden and Fire Engines, Grind stones, Vegetable Boilers, Field and Garden Rollers, Bull Rings, Cattle Ties, Hay-knives, Cultivators, &c.
Feb. 15—w&m2m

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER 2,000,000 OF ACRES of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest.* The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to CHAS M. DUPUY, Jr.,
Land Agent Ill. Cen. R. R. Co.
March 15—m6t* No. 84 Lake St., Chicago, Ill.

Dederick's Hay Press.

Dederick's Parallel Lever Horizontal and Vertical Portable Hay Press. Patented May 16th and June 6th, 1854.

THE above new, powerful, and exceedingly convenient Press, with two men and a horse, will bale, according to the No. of the press, from six to eight tons of hay per day. The Press for 300 lb. bale, is 12 feet long, 5 feet high and 3½ wide. It can be drawn by a pair of horses or oxen, as a sleigh is drawn, from one field or farm to another; and whenever stopped, is always ready for operation They are now being shipped to all parts of the country, and are, in every case, giving the highest satisfaction. They have received the 1st Premiums at the New-York, Ohio and Pennsylvania State Fairs. Prices, according to the size, from $130 to $175.

For for further particulars, address
DEERING & DICKSON, Manufacturers,
Premium Agricultural Works, Albany, N. Y.,
Or either of the following Agents:
John Maher & Co., P. B. Gates, New-York
Paschall Morris & Co., Philadelphia, Pa.
James Wardrop, Pittsburg, Pa.
James Garget & Co., Cleveland, Ohio.
Byram, Pitkin & Co., Louisville, Ky.
Wm. M. Plant & Co., St. Louis, Mo.
Mumford & Co., Lafayette, Ind
A. J. Kenworthy, Thornton, Ind.
J. W. Holder & Co., Bloomington, Ill.
March 15—w&mtf

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo. Young, Esq., Milo Center, Elias Bently, Esq, Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y, Judge Ellsworth, Penn Yan. March 1—mtf—

EXCELSIOR
AGRICULTURAL IMPLEMENT MANUFACTORY,
WARE-HOUSE AND SEED STORE,
369 & 371 BROADWAY, ALBANY, NEW-YORK.

RICH'D H. PEASE, PROPRIETOR.

THE EXCELSIOR HORSE POWER,

WITH

Threshers, Separators, Cleaners, Clover Hullers, Circular and Cross Cut Saw Mills,

For various purposes, and all other Implements adapted to the Power, is not surpassed by any now in use, and is offered on the most Liberal Terms, both as to discount and warrantee.

THE subscriber is manufacturing the above Power, which combines all the valuable qualities of the EMERY and other Powers, and some important improvements.

PRICES FOR 1855.

Excelsior Changeable Railroad Horse Power, Thresher and Separator, for two Horses,.....$160 00
do do do for one Horse,..... 128 00
do two Horse Power, with Thresher and Cleaner combined, ... 235 00
do two Horse Power, including Band Wheel, ... 116 00
do for one Horse,..... 85 00
Threshing Machine, with Separator and fixtures, 26 inch Cylinder,..... 40 00
do 24 inch Cylinder,..... 37 00
Set of Bands for Machine, with Extras, &c,..... 5 00
Fanning Mills, fitted for Power.....$26, $28, 30 and $32 00
Portable Circular Saw Mills, 24 inch Circular Saw, for Wood Cutting, &c..... 37 00
Extra Table and Saw for Slitting Boards and Fencing Stuff, and general shop use,..... 7 00
Upright or Fellow Saw for Wheelwrights' use..... 40 00
Cross-Cut Saw Arrangements, for Power, for cutting logs, greatly improved,..... 25 00
Churn Attachment, to Power, for one or more Churns, 12 00
Feed Mills, with iron plates,..... 40 00
Power Corn Shellers,.....$40 to 55 00
Clover Hullers.....$30 to 100 00
Excelsior Cider and Wine Mill—Kreuser's Patent, . 40 00

A moment's examination of this mill will discover its peculiar advantages over all other mills in use. Two men will readily make from eight to ten barrels of Cider per day, and that with seven or eight bushels of good apples per barrel. By the application of Horse Power, much more may be done. It is as well adapted, in all respects, to the manufacture of Wine, from the Grape, as Cider from the Apple. The pulp, or pumice, is easily subjected to a pressure of about ten tons, by the use of a lever, in the hands of one man. It is very simple in its arrangement, and from its peculiar construction is not liable to get out of order by any ordinary or necessary use, and it cannot be clogged by over-feeding. This Mill took the first prize, (a Silver Medal,) over Hickok's, at the Pennsylvania State Fair. We have no space for numerous recommendations.

Sausage Meat Cutters,.....$3 to $10 00
Hydraulic Rams,.....$8 to 30 00
Fanning Mills, (Grant's) .....$21 to 31 00
Coal, Garden and Canal Barrows, ...
Grind Stone Fixtures. ....$1 50 to 2 25
Pruning Shears and Horticultural Tools,.....
Hay Cutters, for Hand or Horse Power, ...$7 to 28 00
Patent Ox Yokes,.....$3 25 to 3 50
Vegetable Cutters,..... 10 00
Grain Cradles and Scythes,.....
Cowing's Pump for Cisterns,.....$2 to 5 00
do do for Wells, ...$6 to 12 00
Corn and Seed Planters, ...$3 50 to 14 00
Mowing and Reaping Machines, of the most improved kinds, ...
Furnaces, for Farm use,..... .....$9 to 24 00
Field Rollers,..... .....$25 to 60 00
Garden Rollers,.....$6 to 22 00
Grain Drills,.....$80 to 100 00
Garden and Fire Engines, ...$25 to 300 00
Chain Pumps,..... 10 00
Sugar Mills,.....$10 to 20 00
Barrel, Cylinder and Thermometer Churns, ..$1 25 to 11 00
Store Trucks,.....$5 to 16 00

Rifles and Sandstones, Hand Rakes and Potato Hooks, Hoes, Spades and Shovels; Hay, Barley and Manure Forks; Garden and Cranberry Rakes; Axe, Shovel, Spade and Fork Handles, Bog Hoes and Bush Hooks, Ox Muzzles and Cattle Chains; Post Augers and Crowbars, Corn Knives and Grass Hooks, Garden and Lawn Ornaments; Butter Bowls, Ladles and Moulds; Feed Mills, Corn and Cob Crushers, Bird Seed and Bird Cages, Well Buckets, Wash Tubs, Washboards, Watering Pots, Coffee and Bark Mills; Fruit Pickers and Apple Parers; Half Bushels, Corn Baskets and Scoop Shovels.

FIELD AND GARDEN SEEDS.

Winter and Spring Wheat and Rye.
Barley, Oats and Buckwheat; Indian Corn of different varieties; Clover and Grass Seed.

Flax Seed, Peas and Beans, Potatoes in their season; Beet, Carrot, Ruta Baga, Onion, Cabbage, Parsnip, Turnip, Squash, Melon and Cucumber Seeds, and all other varieties required for the Farm and Garden.

GUANO, Bone Dust, Poudrette, Superphosphate of Lime, Marls, and various other Fertilizers.

Draining Tile furnished to order.

☞ All orders promptly attended to, if addressed to

RICH'D H. PEASE, Albany, N. Y.

March 22—w1tm.

SUPERIOR THOROUGH-BRED
Devon Cattle and Essex Pigs for Sale.

THE subscriber, having this day purchased from Mr. W. P. Wainright, his interest in the herd of Devon Cattle hitherto owned conjointly by them, will continue to give his strict attention to the breeding and raising of this increasingly popular breed. Having now a herd of over twenty head, bred entirely from animals of his own importation, he is enabled to offer for sale a few young Bulls and Heifers, of very superior quality.

Also constantly on hand, thorough-bred ESSEX PIGS, descended from the best imported stock.

For full particulars as to age, price, pedigree, &c., address

C. S. WAINRIGHT,

April 1—m3t Rhinebeck, Dutchess Co., N. Y.

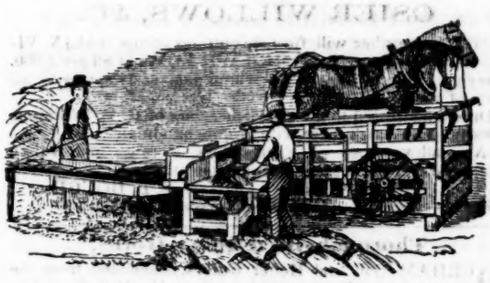
Super-Phosphate of Lime.

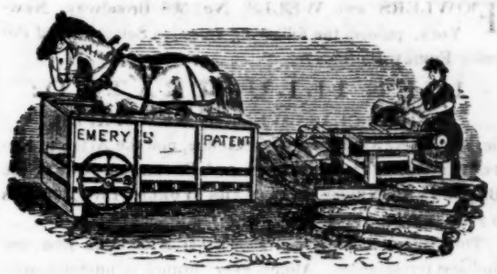
THIS celebrated fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian guano, in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *phosphate*, which is often the case. All crops are benefited by its application. It is composed of ground bones, decomposed by sulphuric acid, to which is added a due proportion of Peruvian guano, sulphate of ammonia, &c.

For sale, with *full* directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,
5 Commercial, cor. of Chatham st., Boston.

Feb. 16, 1854—w&mtf





ALBANY AGRICULTURAL WORKS,

ON HAMILTON, LIBERTY, AND UNION STREETS;

WAREHOUSE AND SEED STORE,

REMOVED TO

No. 52 State Street, Albany, N. Y.

The Proprietors of the above named establishment being the sole owners and manufacturers of

EMERY'S PATENT HORSE POWER, &c.,

☞ ALL ARRANGEMENTS WITH OTHER PARTIES FOR THEIR MANUFACTURE HAVING EXPIRED, ☜

have formed a new copartnership, under the firm name of

EMERY BROTHERS,

And will continue the manufacture and sale of AGRICULTURAL IMPLEMENTS and MACHINERY, as heretofore, at the old stands of EMERY & Co. By this arrangement the united efforts and interest of the Brothers, long known to the public, are secured, and no exertions will be spared to meet the wishes of those dealing in and using the class of implements they manufacture—their leading branch being the manufacture of the justly celebrated

Emery's Patent Changeable Geered Railroad Horse Powers,

With the machines to be propelled by it, as Threshing Machines, Saw Mills, and Machinery generally.

These Powers having been submitted repeatedly to the most severe tests and trials to determine their relative merit and utility with those of every known manufacturer, have without exception been awarded the highest prizes for superiority—among which were the following:

N. Y. STATE AG'L SOCIETY, 1854, 1853, 1852, 1851, 1850.	MARYLAND STATE AGRICULTURAL SOC'Y, 1853.
OHIO STATE BOARD OF AG., 1854, 1853, 1852, 1851.	MISSOURI STATE AGRICULTURAL SOCIETY, 1853.
MICHIGAN STATE AG'L SOCIETY, 1853, 1852, 1851.	AMERICAN INSTITUTE, 1852, 1851.
INDIANA STATE AGRICULTURAL SOCIETY, 1853.	NEW YORK CRYSTAL PALACE, 1853.
ILLINOIS STATE AGRICULTURAL SOCIETY, 1853.	CANADA PROVINCIAL SOCIETY, 1852, 1851.
PENNSYLVANIA STATE AG'L SOCIETY, 1853.	CONNECTICUT STATE AGRICULTURAL FAIR, 1854.

WARRANTY, CAPACITY, ECONOMY, &c.

The TWO HORSE POWER and THRESHER, is capable, with three or four men, of threshing from 175 to 225 bushels of wheat or rye, and the ONE HORSE POWER from 75 to 125 bushels of wheat or rye; or both kinds of powers, &c., are capable of threshing double that amount of oats, barley or buckwheat, per day, of ordinary fair yield. If the crops be extraordinarily heavy or light, greater or less results will follow.

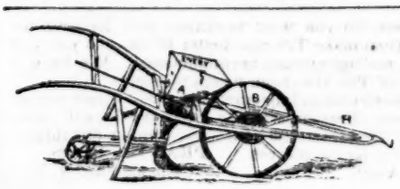
These Powers, Threshers, &c., are warranted to be of the best materials and workmanship, and to operate as represented by this Circular, to the satisfaction of the purchasers, together with a full right of using them in any territory of the United States, subject to be returned within three months, and home transportation and full purchase money refunded if not found acceptable to purchasers.

The public may rest assured the reputation heretofore earned for our manufactures, shall be fully sustained, by using none but the best material and workmanship; and by a strict attention to business, they hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed, which we respectfully solicit.

N. B. All articles bear the name of "EMERY" in raised letters upon the cast iron parts, and however much others may resemble them, none are genuine without this mark.

Full descriptive illustrated price Catalogues sent gratis on application.

Albany, N. Y., March 15, 1855. **EMERY BROTHERS.**



Emery's Albany Corn and Seed Planter—for Hand or Horse.

The machine measures its own quantity of seed, deposits it in hills or drills at pleasure—corn, beans, peas, &c., by means of a cylinder and their gravity—beet, carrot, onion, and small Seeds, by a revolving brush, and at any distance apart, covering the seed, and compressing it by means of the roller, at one and the same time. Several hundred have been sold annually, and have given universal satisfaction. One acre per hour is readily planted, with the rows three feet apart. Price, $14.

FOWLERS AND WELLS, No. 308 Broadway, New-York, publish the following valuable Scientific and Popular Family Journals:

LIFE ILLUSTRATED:

A FIRST-CLASS WEEKLY NEWSPAPER,

devoted to News, Literature, Science, and the Arts; to ENTERTAINMENT, IMPROVEMENT and PROGRESS. One of the BEST FAMILY NEWSPAPERS IN THE WORLD. TWO DOLLARS a year.

The Scientific American says: "It is of large size and faultless typography. Almost every branch of human knowledge is treated by able writers." The Rhode Island Reformer says: "We pronounce it the most beautiful Weekly in the Union."

THE WATER-CURE JOURNAL:

Devoted to Hydropathy, its Philosophy and Practice; to Physiology and Anatomy, with numerous Illustrations; and those laws which govern Life and Health $1 a year.

The most popular Health Journal in the world. [Eve. Post.

THE PHRENOLOGICAL JOURNAL:

Devoted to all those Progressive measures for the elevation and improvement of Mankind. $1 a year.

"Devoted to the highest happiness and interest of man, written in a clear and lively style, afforded at the 'low price' of one dollar a year, it must succeed in running up its present large circulation to a much higher figure." [N. Y. Tribune.

FOR THREE DOLLARS, in advance, a copy of each of these three Journals will be sent one year. Address, prepaid,

FOWLERS AND WELLS,
Feb. 8—w4tm2t No 308 Broadway, New-York.

HIGHLAND NURSERIES,

NEWBURGH, N. Y.

A. SAUL & CO. in calling the attention of the public to their establishment, deem a lengthened notice unnecessary. They would merely state that the stock of their nurseries which they offer for sale the coming spring, is full in every department, and is of the best quality; including all the recently introduced *Pears* and other fruits, both *Dwarf* and *Standard*; also all the varieties in the *ornamental department*, both deciduous and Evergreen, including all the new and rare *Conifers*, *Weeping Trees* and *Shrubs*, as well as a full stock of all the leading articles to be had in the trade.

For particulars in detail they refer to their general catalogue, a new edition of which is ready, and will be forwarded to all *post-paid* applications, enclosing a P. O. Stamp to prepay the same.

A large quantity of Osage Orange and Buckthorn plants for hedge and screen purposes.

Dealers and planters of trees on a large scale, dealt with on the most liberal terms.

Newburgh, Feb. 22, 1853—w&m2m

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.

Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.

MANURES.

PERUVIAN Guano, Bone-dust, Superphosphate of Lime, Poudrette, Plaster, Charcoal, Oil of Vitriol, &c., for sale by GRIFFING & BRO.,

North River Agricultural Ware House,
Feb. 15—w&m2m No. 60 Cortland St. New-York.

Fertilizers.

PERUVIAN GUANO, with importer's brand on each bag—price $48 per ton of 2000 lbs. In less quantity, 2½ cents per lb.

Improved Superphosphate of Lime of the best quality, No. 1—$45 per ton of 2000 lbs.

Bone Dust—warranted pure, at $2, $2.25 and $2.50 per barrel.

Ground Land Plaster.

Pulverised Charcoal.

Poudrette. For sale by A. LONGETT.

No. 34 Cliff Street, one door from Fulton.
Feb. 22—w4tm2t. New-York.

OSIER WILLOWS, &C.

THE subscriber will furnish cuttings of the SALIX VIMINALIS, the best OSIER WILLOW, at $3 per 1,000. They can be sent during the winter and early spring to all parts of the continent.

Orders addressed to the subscriber, care of C. P. Williams, Albany, N. Y., will meet with prompt attention.

Also all varieties of Fruit Trees, Foreign and Native Grapes, &c. Catalogues sent on application.

S. P. HOUGH,
Feb. 8—w8tm2t Hillside Nurseries, Albany, N. Y.

Thorough-Bred Short Horns.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf Albany.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

PURE BRED ANIMALS

AT PRIVATE SALE.

Mount Fordham, Westchester Co., 11 miles from City Hall, New-York, by Harlem Railroad.

HAVING completed the sale of my domestic animals, as advertised in Catalogue of 1854, excepting Short Horn Bull BALCO (9918), and at prices highly remunerative, for which patronage I feel grateful, not only to the public of almost every State in our Union, but to the Canadas, Cuba, and the Sandwich Islands, *I will issue about the 1st of March, a Catalogue for 1853*, consisting of Short Horned Bulls and Bull Calves, (some of which belong to my friend and part associate, Mr. N. J. BECAR,) North Devon Bulls and Bull Calves, Southdown Rams, Suffolk, Berkshire and Essex Swine, now ready for delivery, of almost all ages, and of both sexes. This Catalogue will be illustrated with portraits of my Prize Animals. Most of the original animals of my breeding establishment, were selected by me from England in person, and strictly in reference to qualities, in my judgment, best adapted for the use of this country.

Feb. 1—w&mtf L. G. MORRIS.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15,000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address PRATT & BROS

Dec. 21—w&mtf. Canandaigua, N. Y.

Farm Lands for Sale.

The Illinois Central Railroad Company

Is now prepared to sell over Two Millions of Acres of Prairie Farm Lands, in Tracts of Forty Acres or upward, on Long Credit and at Low Rates of Interest!

THEY were granted by the Government, to encourage the building of this Railroad, which runs from the extreme North to the extreme South of the State of Illinois The road passes, from end to end, through the richest and most fertile Prairies of the State, dotted here and there with magnificent Oak Groves. The recent opening of nearly six hundred miles of the Company's Railroad throws open their lands for cultivation, they being scattered for several miles in width, on each side of the road, throughout its entire length.

The soil is a dark, rich mold, from one to five feet in depth, is gently rolling, and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

The economy in cultivating and the productiveness of Illinois lands are well known. Trees are not required to be cut down, stumps grubbed, or stone picked off, as is generally the case in the cultivating of new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and sometimes that of fencing. Wheat sown on the newly-turned sod is sure to yield very *large profits*. One man with a plow and two yoke of oxen will break one and a half to two acres per day Contracts can be made for breaking, ready for corn or wheat, at from $2 to $2.50 per acre. By judicious management, farms may be broken and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market. The rapid increase and growth of flourishing towns and villages along the line afford a substantial and growing home demand for farm produce.

Bituminous coal is mined at several points along the road and is a cheap and desirable fuel.

Price and Terms of Payment.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for deeds may be made during the year 1855, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will come due at the end of the sixth year from the date of the contract.

Interest will be Charged at only 2 Per Cent Per An.

As a security for the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that from one-tenth to one-fourth of the land purchased shall yearly be brought under cultivation. Large credits at six per cent. per annum, may be negotiated by special application. Twenty per cent from the credit price will be deducted for cash. The Company's construction bonds will be received as cash.

Contracts have been made with responsible parties to keep on hand

Ready-Framed Farm Dwellings,

Which can be set up in a few days. They will be 12 by 20 feet, divided into one Living and three Bedrooms, and will cost complete—set up on ground chosen anywhere along the Road. $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly, charging for the cheapest class at the rate of 11 cents for every mile transported.

Special arrangements with dealers have been made to supply those purchasing the Company's land with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices*.

It is believed that the price, long credit and low rate of interest, charged for these lands, will enable a man, with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the meantime, the rapid settlement of the country will probably have increased their value four or five fold. When required, an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing etc., by contract—or any other information will be cheerfully given on application, either personally or by letter, post-paid, in English, French, or German. Addressed to CHARLES M. DUPUY, Jr., Land Agent of the Illinois Central R. R. Co., Chicago, Ill.

Feb. 22—w1tm2t. J. N. A. GRISWOLD, President.

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vitæ, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also, Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern States—from Boston, by railroad and boats. For terms, &c., address, post-paid.

March 1—m2t WM. MANN, Bangor, Me.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England—81 *Maiden Lane, New-York City.*

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,	Hampshire Sheep,
Short-Horned Cattle,	Cotswold, Leicester do
Devons, Herefords, Ayrshires,	Suffolk Pigs,
Alderney Cows from Islands of Alderney and Guernsey,	Essex, Berkshire do
Pure bred Southdown Sheep,	Merino Sheep from Spain,
	Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros, have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS, or, J. M. MILLER, Agent, 81 Maiden-lane

Jan. 4—1am—m1y. New York City.

FARMERS AND GARDENERS

WHO cannot get manure enough, will find a cheap and powerful substitute in the IMPROVED POUDRETTE made by the subscribers. The small quantity used, the ease with which it is applied, and the powerful stimulus it gives to vegetation, render it the cheapest and best manure in the world. It causes plants to come up quicker, to grow faster, to yield heavier and ripen earlier than any other manure in the world, and unlike other fertilizers, it can be brought in direct contact with the plant. Three dollars worth is sufficient to manure an acre of corn. Price, delivered free of cartage or package on board of vessel or railroad in New-York city, $1.50 per barrel, for any quantity over six barrels; 1 barrel, $2; 2 barrels, $3.50; 3 barrels, $5.00; 5 barrels, $8.00. A pamphlet with information and directions will be sent gratis and post-paid, to any one applying for the same.

Address, the LODI MANUFACTURING COMPANY,
74 Cortlandt Street, New-York.

WATERTOWN, Mass, Oct. 19, 1854.

Lodi Manufacturing Company:

Gentlemen—at the request of John P. Cushing, Esq. of this place, I have, for the last five years, purchased from you 200 barrels of POUDRETTE per annum, which he has used upon his extensive and celebrated garden in this town. He gives it altogether the preference over every artificial manure, (Guano not excepted,) speaks of it in the highest terms as a manure for the kitchen garden, especially for potatoes.

I am, gentlemen, very respectfully,
Your obedient servant,

Jan. 18—w1am4t—m4t BENJAMIN DANA.

Agricultural Books,

For sale at the office of the Country Gentleman.

Contents of this Number.

Agricultural and Horticultural IMPLEMENTS.

MOWING AND REAPING MACHINES, Plows, Harrows, Cultivators, and all other Field and Garden Implements of the most improved kinds. The largest and most complete assortment to be found in the United States.

R. L. ALLEN, 189 & 191 Water-st.,
March 22—12,14,16,18—m2t New-York.

Pure Bred Stock at Private Sale.

Etherton Farms, West Needham, Norfolk Co., Mass., 12 miles from Boston by Worcester Railroad.

THE animals for sale in our catalogue for 1854, have been sold to gentlemen throughout the United States, whose names will appear in a descriptive catalogue just issued. It is illustrated by our prize animals, consisting in part of Jersey or miscalled Alderney Cattle, and Suffolk Swine, which we imported from England, and took the first prizes for in 1854 and 1855, at Norfolk Agricultural Society, Mass.

SUFFOLK PIGS, 3 to 5 months old, $30 per pair; or delivered to any part of the United States, free of charge, for $40. Address as above. JAMES MORTON & SON,
Or GEORGE H. P. FLAGG,
March 22—w2tm1t* Boston, Massachusetts.

Will be ready on the 1st of April,

A NEW WORK BY BARON LIEBIG.

The Relations of Chemistry to Agriculture, AND THE EXPERIMENTS OF J. B. LAWES.

BY JUSTUS VON LIEBIG.

Translated at the especial request of the Author, and under his immediate supervision, by S. W. JOHNSON.

THIS new work of the justly celebrated Liebig, gives a full exposition of its distinguished author's views of the RELATIONS OF CHEMISTRY TO AGRICULTURE. It is a thorough and searching review of the criticisms which have been made, during the last four or five years, upon his theory of the action of the various fertilizers and the food of plants. Intricate as the subject is, it will not fail to excite the unflagging interest of the reader, be he chemist or farmer, and to attract universal attention among the scientific as well as the farming community.

Price 25 cents—sent free by mail, for nine postage stamps. All orders to be addressed to LUTHER TUCKER,
Publisher Country Gentleman,
Albany, N. Y.

Field and Garden Seeds.

SPRING WHEAT.—Golden Drop, or Fife, Tea, Black Sea, and other celebrated varieties.
POTATOES.—Early Imperial, Early June, Excelsior, and Mexican, and other kinds—very superior.
OATS.—Poland, Imperial, and Potato.
PEAS.—Early May, Early June, and Prince Albert.
Sugar Beet, and a great variety of other sorts of best fresh Garden Seeds.
GRASSES AND CLOVER.—Ray, Blue, Foul Meadow, and Sweet-scented Vernal Grasses. Alsike, Mammoth, and other sorts of Clover. All kinds of American Grasses.

R. L. ALLEN,
189 & 191 Water st.,
March 22—12,14,16,18—m2t New-York.

Suburban Residence and Farm for Sale.

THE GROVE FARM, adjoining the corporation line of Canandaigua, on the high ground north-east of the village, and within a mile of Market, R. R. Depots, Post Office, Schools, Churches, &c., is one of the most beautiful and desirable suburban residences in western New-York. It contains 153 acres of choice land, including about 25 acres of wood-land—a fine, well-finished brick house, in the English Cottage style, a tenant house, three barns, sheds, granary, and other out-buildings, altogether erected at at a cost of not less than $10,000. There is an Apple and Peach orchard, and a Kitchen garden well stocked with all kinds of small fruit, and a never-failing Spring capable of watering the whole Farm, which is nearly of a square form, having the public road on three sides of it, and the wood-land on the fourth side. There is a beautiful Grove of 4 acres, of second growth timber, in front of the house, giving name to the Farm, and from which there is a fine view of the Lake and surrounding country.

The buildings and 50 acres may be purchased for $10,000, or the whole farm for $100 per acre, with no more required down, or collaterally secured, than may be necessary to render the sale positive. The location is a most healthy and eligible one for either a farmer, or a business man who wishes to retire, and yet possess access to the conveniences of town life and the best society.

For further particulars, apply to the subscriber on the premises, or address WM. R. MACAO,
March 29—w2tm1t Canandaigua, N. Y.

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